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ABSTRACT

This book provides a model to help facilities for training handicapped persons to teach janitorial work and set up a contracting program for janitorial services. The book is organized in three sections. The first section outlines the training production model, including hints on beginning the venture, separation of training and contracting functions, contracting and training interaction, and the ancillary training program. In the second section, information on janitorial training is given. Topics include the training program (with information on choosing a site, curriculum, and instructors and purchasing and using equipment and supplies), administering criterion curricula, training for critical vocational behaviors, and length of training. The final section of the book contains guidelines for janitorial contracting. Information is included on defining contracting, the role of quality, competition, types of contracts, bids, selling services, quotations, legal documents, and keeping contracts. Sources considered to be useful are listed. Appendixes include performance formulas, janitorial curricula, and bidding formulas. (KC)

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CONTRACTING JANITORIAL SERVICES

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A Training and Production Model

By: Christopher A. Smith

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Materials Development Center
Stout Vocational Rehabilitation Institute
School of Education and Human Services
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

CONTRACTING
JANITORIAL
SERVICES

A TRAINING AND PRODUCTION MODEL

by

CHRISTOPHER A. SMITH

Materials Development Center
Stout Vocational Rehabilitation Institute
School of Education and Human Services
University of Wisconsin-Stout
Menomonie, Wisconsin
54751

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For six years Area Residential Care, Inc. in Dubuque, Iowa gave the author the opportunity to learn, experiment and grow in the field of vocational rehabilitation, and to learn service contracting by building a program. Greatful acknowledgement is made to Gary Warner and Barbara Dyer for their support and encouragement during those years as well as to the staff of the Services Training Program and the many other staff members of Area Residential Care who provide superlative services.

Christopher A. Smith
Menomonie, Wisconsin
November, 1983

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Preface

Whenever an organization moves into new areas of operation, it faces risks.

Risk is also encountered by an organization that decides not to enter into new areas of operation. In our fast changing society, the risk of obsolescense is perhaps greater than the risk of failure in a new program.

The shift of the labor economy out of assembly intensive industries into more technologically oriented positions may force rehabilitation facilities to look into new training areas for their clients. Two primary areas now being explored by some rehabilitation facilities to provide opportunities for their clients are technological training and service training. In addition, the loss of assembly contracts in sheltered production operations is making service contracting and information processing look more attractive from a production income standpoint.

This book is an attempt to point one road into the contracting field and to help minimize the venture risk.

Introduction

This book will give facilities with no experience in janitorial training or contracting a chance to develop strong programs. It will also give facilities that already have training programs in the janitorial field a chance to expand into contracting. Finally, facilities already engaging in janitorial contracting may find some of the methods in this publication adaptable to their programs.

No matter where your organization begins to explore janitorial contracting, it is always important to take a look at the organization's internal and external environments. Though this book will minimize the risk of venturing into this new business opportunity, only you can tell if janitorial contracting will be right in your facility and community with your clients at the present time.

In this model, training and production are compatible parts of the same process. By interrelating the two areas and introducing the new area of ongoing training, both production and training aims are enhanced.

IN ALL PHASES OF THE TRAINING AND PRODUCTION PROCESS, THE USE OF COMMUNITY PERFORMANCE STANDARDS IS STRESSED. Use of community standards binds this process to the community by allowing clients to be trained in skills needed by the community. After training, the clients can then apply their skills through service contracting that reflects community performance standards to survive.

THE TRAINING AND PRODUCTION MODEL

THE FIRST STEP

Organizational planning is the backbone of a successful venture into a new operation. The completion of a marketing analysis is essential to planning. Organizations exist to provide goods or services to members or the public and need to include member and public needs and desires for goods or services in the organizational planning process. Information gathered by marketing analysis about your organization and community will guide decisions about the structure of the new janitorial training and contracting programs. The information may even indicate that your organization should not enter the janitorial field at this time.

Kotler (1975), Rados (1981), and Montana (1978) have each published books on not-for-profit marketing. Their books and other marketing texts cited in the resource list at the end of this publication may help conduct marketing analysis.

A marketing analysis begins with the development of organizational mission statements, moves into the development of fact finding teams that help identify organizational resources, and then poses questions about the organization's customers, products, and operating environments. The analysis, completed by intra-organizational teams sometimes with the assistance of external consultants, can provide foundation information without an expenditure of large sums of money for market research.

The marketing analysis may indicate that your facility could successfully compete in the janitorial training and contracting market. It may show that there is a need in the community for trained janitors. It may show that there are enough businesses to support another janitorial contractor in the area. If these conditions appear, and you have enough clients interested in janitorial work to start a program, this book can help you get started.

SEPARATION OF TRAINING AND CONTRACTING FUNCTIONS

Training can coexist with production in varying degrees. Separating the demands, budgets, and staff time into "training" and "production" is the most viable because the separation of functions allows the emphasis in each area to stand out. Emphasis in the "training" program is placed on skill, knowledge and proficiency. Whereas in the "production" program emphasis is placed on work behaviors. Though both areas of emphasis are found in each program, their degree of importance to the completion of the respective program's objectives for clients varies. This allows for:

(A) Prime attention to be given to attainment of program objectives.

(B) Better evaluations of client abilities in relation to program objectives.

(C) More flexibility to serve clients of varying abilities.

(D) Clear separation of times when client is engaging in work that must be compensated by wages.

Interaction between training and production areas is important. Well defined procedures guiding the interaction may lead to the provision of better service by limiting confusion. Set procedures governing the movement of clients between programs and discharge into the community are essential for obtaining client's referrals from third party payers. Client movement procedures are also essential to gain Department of Labor certification to pay subminimum wages.

All persons involved with the operation (social workers, clients, funding sources, management, and direct client workers) of a training program need to fully understand training specifics and time frames. It is important they know criterias and procedures governing client movement into other phases of training or into job placement; each involved person needs to know how their client is progressing.

It is sometimes difficult for all people involved with a client to agree on issues. Major disagreements occur over answers to questions like:

> "When my client is engaging in production activity, is he still receiving training?"
>
> "My client has been engaging in production activity for many months. Isn't my client ready for competitive job placement?"

These may be difficult questions to answer. However, your program can develop statements of procedure to determine the answers and avoid the questions.

Procedural statements start with the examination of your reason for entering the janitorial contracting field. Likely, it is to give your disabled clients a normalizing training environment and a source of income. The trick will be to balance the training needs of the disabled client with the expectancies of the service consumer.

Because completion of janitorial service contracts in a satisfactory manner will be paramount to the success of the operation, the understandable temptation will be to hold the best producing clients as long as possible. Structures must be put into place to insure that this does not become a trap that cheats the client and reflects the unfavorable light of unethical conduct in labor relations on your facility.

In part of this manual, criteria will be established for the determination of the client's stay in the training program. Criteria must also be established for the contracting area and these two criterion must be interrelated to assure a smooth transition for clients moving between programs.

This manual proposes the addition of an ancillary training program to the training and production relationship (see Figure 1). This will allow for more controlled client movement from referral through training and skill building to competitive community job placement. It will provide clients with the best possible training environment.

Including an ancillary program in the gap between training and production programs enables a clear split in tasks to occur. The initial training program can concentrate on assessing and training new clients entering the program. The janitorial service contracting program can concentrate on providing a normalizing work site for the client in need of extended support as well as concentrating on providing quality service to the businesses asking for janitorial service. Finally, the ancillary training program allows the training and production programs to concentrate on their assigned tasks by providing for completion of each program's non-emphasis client services that would otherwise be squeezed into schedules aimed at meeting emphasis objectives.

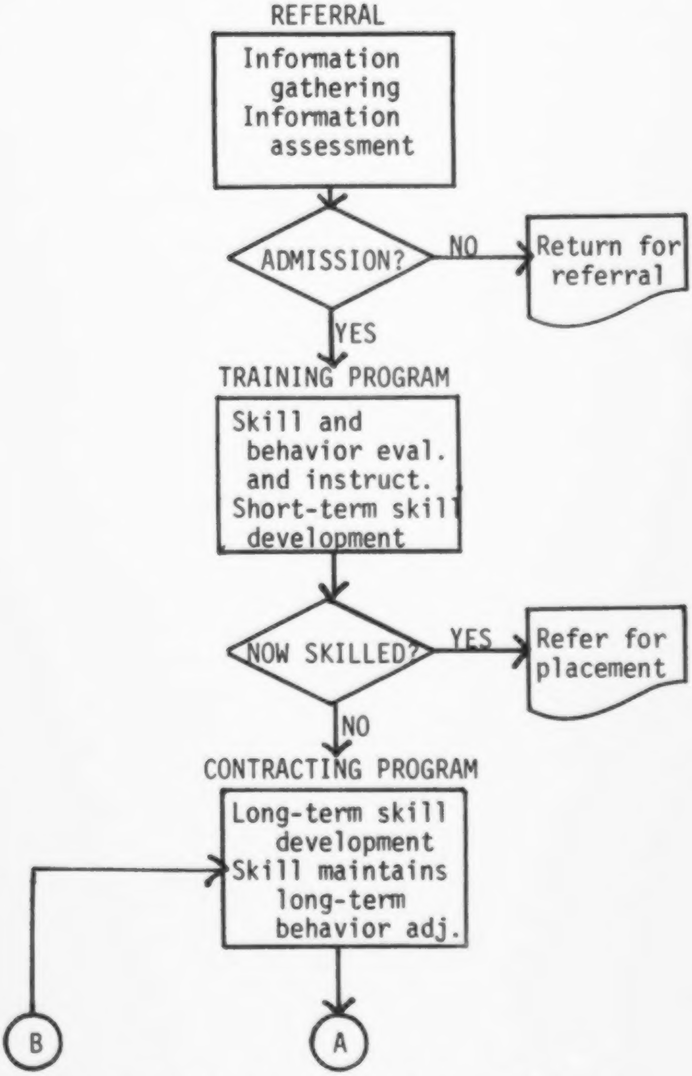
REFERRAL
Information gathering
Information assessment
ADMISSION?
NO
Return for referral
YES
TRAINING PROGRAM
Skill and behavior eval. and instruct.
Short-term skill development
NOW SKILLED?
YES
Refer for placement
NO
CONTRACTING PROGRAM
Long-term skill development
Skill maintains long-term behavior adj.
B
A

FIGURE 1: Model Janitorial Training and Service Contracting Program, area function chart. (For decision making flow plan, see Figure 3.)

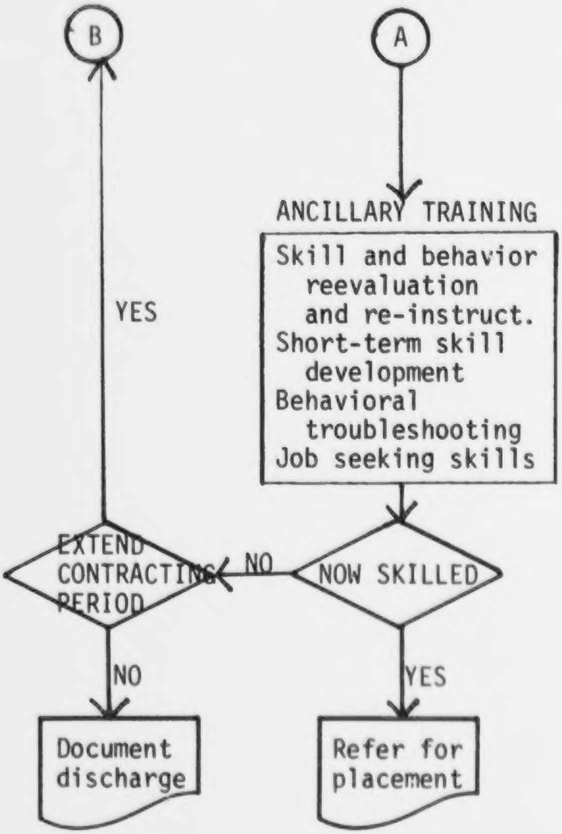
B
A
ANCILLARY TRAINING
Skill and behavior reevaluation and re-instruct.
Short-term skill development
Behavioral troubleshooting
Job seeking skills
YES
EXTEND CONTRACTING PERIOD
NO
NOW SKILLED
NO
YES
Document discharge
Refer for placement

FIGURE 1: Continued.

CONTRACTING AND TRAINING INTERACTION

Let us examine the tasks of each area:

Training

Skill and behavior evaluation
Skill and behavior instruction
Short-term skill development

Contracting

Long-term skill development
Skill maintenance
Behavioral adjustment

Ancillary Training

Skill and behavior reevaluation
Skill and behavior reinstruction
Short-term skill development
Behavioral troubleshooting
Job seeking skills

The tasks for the training and contracting areas appear to be separate. However, contracting programs may also have to reevaluate skills and behaviors, reinstruct skills not utilized in the contracting area but still needed by the potential employee, and provide the initial training of new skills when they are needed. The contracting program ends up with these tasks because:

(A) Moving the client back into the training program will leave the contracting crew short handed.

(B) Moving the client back into the training program will put pressure on the scheduling of new referrals into the training program by tying up an otherwise open spot for new referrals.

In addition to these extra tasks, the contracting program may also end up with a client exhibiting a difficult behavior problem. Unable to deal with the behavior problem and still provide quality service to the business customer and also unable to return the client to the training program, the contracting program may dismiss the client from the program.

Further problems are encountered when the contracting program attempts to squeeze these extra tasks into their normal activities:

(A) The contracting area may find that by providing these extra tasks of evaluation and training, less time can be devoted to quality assurance on the contract.

(B) Because some of the jobs that the client learned in the training program and needs to know to compete in the job market may not be used regularly in provision of contract service and may, therefore, be forgotten by the client and not used by the foreman, the contracting foreman may not provide adequate training and the correct materials for training may not be regularly stocked.

These problems force the contracting foreman to attempt to please only the source of immediate pressure. If the business is demanding attention to the contract, the extra tasks are omitted from the service day. If the rehabilitation supervisors are demanding that a client receive better service, the extra tasks are performed. The big loser is the client.

A final danger exists in the provision of service without an ancillary training program. One of the extra tasks assigned to the contracting program is the evaluation of a client's skill and behavior for the determination of movement to competitive job placements. This leaves the lingering thought that the evaluation may be biased to keep the more productive clients in the program to make the provision of contract services easier.

The ancillary training program used together with the training and contracting programs eliminates these difficulties. Skill and behavior reevaluation and reinstruction, behavioral troubleshooting, and short-term skill development can all be performed on a regular basis without upsetting production schedules or training referrals. As the ancillary program provides the reevaluation service and makes decisions regarding the movement of the client into competitive job placement, the charge of retaining job ready clients for production completion will have no grounds.

THE ANCILLARY TRAINING PROGRAM

The ancillary training program acts to support and balance the training and contracting programs. As such, all of the evaluation and training that is provided mirrors the evaluation and training used in the training program and practiced by the contracting program. The ancillary program differs from the training program in that:

(A) The ancillary program is very short term in nature, with the primary emphasis on reevaluation of competitive janitorial job skills.

(B) The ancillary program will see all clients from the contracting program on a routine basis as well as receive referrals on a need basis.

(C) The ancillary program will have a flexible schedule to allow for the emergency entrance of clients with disruptive behavior problems.

To accomplish support and balance objectives, the ancillary training program establishes a rotation schedule for each client in the contracting program. The frequency at which each client will rotate into the ancillary training program for evaluation will be determined by your organizational needs and the needs dictated by your client population. No less than once every six months is recommended.

The regular rotation schedule will allow each client to move out of the contracting program into the ancillary training program for reevaluation of competitive janitorial skills. If deficits are discovered, the ancillary training program can give short term reinstruction in the skills or devise a plan to allow the reinstruction to be conducted by the contracting program. The regular rotation schedule will also allow the provision of specialized training, such as job seeking skills, that would be difficult to provide in the contracting environment. Finally, the regular rotation schedule will allow the ancillary training program to provide the formal decisions regarding client movement into job placement.

It is the ancillary training program staff that will note a client's progress toward meeting community standards for janitorial job readiness. When the training needs are slight, they will "flag" the client for close attention from the contracting staff, the regular rotation will still recognize the client's job readiness. Job placement and discharge can then be arranged.

One of the problems that made it undesirable to return clients to the training program for re-evaluation and instruction was the loss of a client laborer from the contracting crew. An important attribute of the ancillary training program is the use of the rotation system and floating client.

STARTING THE ANCILLARY SYSTEM

To begin the ancillary system, you need to assign at least two clients to the program. When a client from the contracting program enters into the ancillary training program for reevaluation, one of the assigned clients will take that place on the contracting crew. Thereafter, the rotation system will be in effect. When the ancillary program has completed its reevaluation and training, the client returns to the contracting crew and another client from the crew rotates into the ancillary program. The effect is to keep the number of clients on each crew as static as possible.

The second client assigned to the ancillary program at the start-up is used to replace clients who enter into the ancillary program in emergencies. The emergency may be an incident of client aggression or temper tantrums. By allowing the problem to be dealt with quickly and off the contracting premises, incidents that may have resulted in client discharges can possibly be resolved. This also takes the disruptive behavior out of public scrutiny protecting both the contracting program and the privacy of the client.

Before putting the ancillary program into operation both the training and contracting phases of your program must be in operation.

Since the not-for-profit goals of your facility and its venture into the service contracting field will most likely be written around the development of job training and assessment of vocational potentials, start the training program first. The training program must come first because you will need knowledgeable workers to start and to benefit from your contracting operation.

JANITORIAL TRAINING

THE TRAINING PROGRAM

You will need:

- A training site
- A training curriculum
- Instructor(s)
- Equipment and supplies
- Wage and hour subminimum certification
- Movement policies

Determining a training site

Botterbusch (1978) discussed the needs to be assessed when choosing a location for the evaluation of job behavior. The site to be chosen should provide the environment necessary for the gathering of information needed to determine desired tasks and behaviors. Therefore, begin with an assessment of the skills and behaviors you wish to assess or train. Botterbusch broke the areas to be examined into:

(A) Assessment of work performance in the form of general work skills, specific performance potential, and specific skill testing.

(B) Assessment of work behavior.

(C) Assessment of work environment in the areas of physical demands, environmental conditions, and work tolerances.

(D) Assessment of self-orientation to real work, vocational interest, and reality testing.

(E) Assessment of job seeking skills.

The training site is very important. An inadequate site will distort the client's actual abilities and give the client an unrealistic understanding of what they may be asked to do in a competitive job. Both problems can lead to failure after the placement of clients in competitive situations. This creates the negative psychological effects of failure and often makes further placement difficult for the client. Negative effects on the way the program is perceived by the competitive community may also be generated. With an adequate site, forecasting mistakes will still be made, but they are less likely to be based on false information gathering.

To make the decision on site location, the number of clients that will be served must also be taken into account. Projected client counts will be a major portion of the marketing assessment that precedes your decision to enter the janitorial training and contracting field. The number of clients to be served will have a direct impact on the amount of space needed for training. It may be possible to estimate the number of referrals by discussing the labor market for janitors and housekeepers with Job Service. You will also want to talk with vocational rehabilitation counselors and social service personnel in your area to see if clients are requesting training in janitorial areas.

Applying Botterbusch's assessment areas to the training needs of janitorial training sites indicates that you must locate your site in areas that:

(A) can be used as classroom and demonstration areas;

(B) can be used to measure performance, quality, skill, and knowledge of tasks; and

(C) can simulate actual working sites so that the client's abilities may be observed in as close to normal situations as possible and allow the client to experience the demands of the potential occupation.

When an adequate site is located, choose an adequate curriculum from which to train.

Choosing a curriculum

Most commercially available janitorial and housekeeping curriculum will have to be modified to the facility and the instructor using them. To be useful, the curriculum must contain at least three elements:

(A) The curriculum must have set procedures that allow inexperienced instructors to train without needing to develop materials.

It will take a lot of time to transform the information in the curriculum into step-by-step teaching sequences even if your instructors possess the organization skills to develop the sequences. Procedure based curriculums allow the novice or experienced instructor to quickly prepare lessons for their clients. Modifications of the training procedures can still be made to suit individual facility and instructor needs.

(B) The curriculum must be based on task analysis.

Instruction should be in logical task sequence so each step can aid in the learning of the next step. Your target clients (as determined through your initial marketing research) will dictate the stress you put on this curriculum feature.

(C) The curriculum must allow you to train for knowledge and skill.

The first part of the teaching task is to present knowledge of job performance. The second part of the teaching task is to insure the performance of the job acceptable quality and work pace standards. The curriculum must be based on standards reported as the minimum acceptable score that the client may receive on a test of knowledge or performance and still be said to have exhibited adequate skill and knowledge to perform the job by community janitorial standards. These standards are usually called "pass criteria."

Choosing instructors

Instructors should have both a working knowledge of the disability population they are instructing and a knowledge of the janitorial field. The instructor should also be familiar with teaching techniques and behavior management procedures. It is essential that the instructor have strong scheduling skills to allow for the best use of the training time involving several clients at different points in their training cirriculum.

It is significant for us to realize the large impact personnel has on the operation from the very start. Your budget will probably allocate 70% of the total to the expenses of paying staff and clients. With such a large portion of the expenses going into employees, you must be concerned with hiring competent staff members and training them well.

Your personnel selection procedures must include a thorough reference check. Experience is the best indicator of probable success. If the prospective employee has had previous successes, they have a good chance of succeeding again. If there is any possibility to observe the prospective employee in a similar position to the job opening, the observation should be arranged. This may be accomplished by setting up a mock training situation. Take enough time to be sure that you are hiring a competent trainer. Then, spend enough time familiarizing the newly hired instructor with your facility, the training program they will be part of, and the curriculum they will use. The instructor is the most important part of the system for providing client training service.

Purchasing equipment and supplies

The amount of equipment and supplies you will need is partially dependent upon the number of clients that you will be training each day and the skills for which you train. The following list should provide an adequate start for up to 6 clients per day.

1	Wet vacuum
1	Upright (dry) vacuum
4	Mop buckets
4	Wringers
6	Mop handles
1	Dozen mop heads for general use and one example of each of the various types of heads
2	Dozen spray bottles
4	Housekeeping carts
2	Window squeegees
4	Pails
2	Razor edge scrapers
2	Corn brooms
2	Push brooms
2	Three-foot dust mop frames with handles
6	Dust mop heads
1	Carpet shampooer
1	Buffer
2	Buffer bonnets for dry process carpet cleaning

1 Dozen each of the stripping pads,
  scrubbing pads, and buffing pads
Assortment of brushes
10 pounds of assorted wipers
Germicidal detergent
Bactericidal spray
Cleaning detergent
Window cleaner
Wax stripper
Wax
Floor sealer
Carpet shampoo and defoamer
Bowl cleaner
Porcelain cleaner
Garbage bags
Scrubbing pads
4 25-foot extension cords (3-wire, 12-guage)
Assortment of screwdrivers, pliers, and
  other household tools

Bulk purchasing

Amounts for the consumable supplies have not been included because negotiations with suppliers will determine the best price you can receive for the volume purchased at one time. Wax, detergents, and strippers are least expensive in 55 gallon drums. Wax is best purchased this way. Detergents may not prove to be cost effective in 55 gallon drums. You need several different types of detergents and the time it takes to empty a 55 gallon drum (unless you have a very large operation or share the drum with other parts of the organization) may be excessively long. If you cannot consume a 55 gallon drum in six months, purchase a smaller amount in five gallon pails. Though the per gallon rate is higher, you may save money by not having inventory tied up in the 55 gallon drum. Some deteriorization can occur in storage. Wax and germicidal detergents do deteriorate with exposure to air.

Stripper

Purchase the most powerful stripper available. This will take some experimentation. Attempt to get distributers to give you samples of their strongest products. Heavy-duty strippers are higher priced, but the expense for heavy-duty strippers pays off as many hours of the stripping process are saved. Weaker strippers do not provide a better training for novice clients. In fact, the great amount of frustration from hours of stripping because of weak strippers will be detrimental to the client's training experience and may cause instructor strain as well. Do not attempt to save money on strippers.

Detergent

You should be able to save money on detergents. Most detergent claims to superior cleaning aren't proven on the cleaning floor. Only ammonia will make an appreciable difference, but ammonia will also destroy wax, so stock both ammoniated and non-ammoniated detergents. The less expensive brands do just as good a job as their more expensive competitors. When ammonia is required, purchase ammonia separately.

Bowl cleaners

There are two types of bowl cleaners, either acid or non-acid in action. Train for both acid and non-acid even if you only use the non-acid type in your facility. Many places use the acid variety. Therefore, you need to expose your clients to its proper use and storage.

Window cleaners

Window cleaners vary in quality. Obtain samples and compare their effectiveness with your soil conditions and climate. Consult the Consumers Report as articles show that buyers cannot tell by price which cleaner may work the best. The major problems with glass cleaners are streaking and smudging, freezing in cold weather, and weak solutions.

Porcelain cleaners

Porcelain cleaners are basically the same, so do not pay a premium. Include both abrasive and non-abrasive cleaners in your training program. Also, train clients in the use of cleaners made for plastic bathroom fixtures. Shop carefully for the non-abrasive cleaners made for plastic fixtures as scratching is a real danger and prices vary considerably from brand to brand.

Garbage bags

Prices vary considerably on garbage bags; therefore, check distributors for the best bargain. Bags come in a bewildering variety of sizes and comparisons between distributors will be difficult. Be sure to check the size of the containers in which the bags will be used as bags that are cheap but too large or too small for the containers do not save money.

Germicidal and bactericidal cleaners

Germicides and bactericides should be purchased with the needs of the facilities in mind. Your state board of health will have requirements for germicidal or bactericidal treatment of bathrooms and kitchen areas. Guidelines will be given for acceptable organism count and regeneration rate and will aid you in the purchase of these items. Because knowledge of these health requirements will be essential, contact your state board of health for the requirements. Germicides are usually required in patient or client bedrooms and public bathrooms. They kill contagious organisms. Bactericides are required where more sanitary conditions are required, such as kitchens or nursing areas. Clients should know these requirements exist. Health codes may dictate requirements for the usage and storage of these special cleaning solutions. For instance, to be effective in killing bacteria, a two bucket mopping method must be used with bactericides. Clients in your program must be taught this procedure.

Wipers

Your facility may already have a source of cleaning wipers (rags). Some facilities that operate residential treatment centers in conjuntion with vocational programs may get wipers from cast-off clothing and linen within the facility. Wiping material can be purchased from suppliers. You may wish to consider paper product wipers for some of your cleaning needs. The expense is far greater than the recyclable fabric variety when their one time use is taken into account, but for heavy grease operations or when extremely dust free or germ free conditions need to be met, the paper wipers may be more cost effective.

Wet vacuums

Wet vacuums may also be used as dry vacuums by inserting filters into the collection drums. The only difference between a wet and a dry vacuum is the wet vacuums never allow the pickup to go through the motor. Vacuum motors must be protected from the influx of liquids and switches must be of the heavy-duty toggle variety and protected from moisture. Wheels and handles will tend to be broken first, so select a moderately priced machine with sturdily attached wheels protected from exterior damage and a similarly sturdy handle. Very small wet vacuums will often prove to be inadequate. Very large machines often prove to be wasteful of storage space, difficult to maneuver, and not necessary for the cleaning tasks involved. Get a vacuum motor that can be rebuilt when it fails as rebuilding the motor will save money over replacement costs. Quick maintenance service is a plus when choosing a brand.

Dry vacuums

Dry vacuums can be purchased in many sizes and shapes with or without attachments and in varying degrees of durability. Durability is the most important factor. Stay away from household vacuums as they do not stand up to constant everyday use. Machines that allow the dirt to go through impellor blades are prone to expensive accidents such as damage by metal objects, long cloth articles, or liquid. Purchase a machine that produces suction around a bag so the foreign matter does not get near the motor. Beater attachments are essential. Make sure that the beater drive belt is easy to replace but strong enough to stand up to hard use. Buy grounded and heavy-duty cords with plug ends that are replaceable. Plug ends will be your most frequent replacement part with normal use, and you should keep replacements on hand with the tools needed to replace them.

Mop buckets and wringers

Mop buckets can be purchased in many sizes and styles, with individual preference playing a big role in bucket purchases. Plastic buckets are just as durable as galvanized aluminum or steel, so buy the least expensive bucket in the size indicated by the use. As in all purchases, there is a large difference in the price of the identical buckets between suppliers. It pays to shop around. Unlike buckets, inexpensive wringers will wear out quickly and cause headaches. Buy the best wringer you can afford.

Mop handles

The choice of a mop handle will affect the type of mop head you will purchase. Two main types exist: screw heads and binders. Screw mounted handles afford the best attachment for mop heads but threads quickly become stripped with use and will need to be replaced more often than the binder type of handles. In addition, the types of mop heads available for use will be limited in the screw-in variety. Many binder styles are available, but the center pole types tend to be the sturdiest and "wire around" varieties fail quickly. Wooden vs. metal vs. plastic handles are choices made by personal preference as they all are durable and vary little in cost. Purchase the least expensive in the binder style you desire.

Mop heads

Mops come in several sizes and materials. Different materials are used for different applications and you will need to buy types to meet all your mopping needs. Cotton mop heads are best for waxing; the blends and polyesters are better for general cleaning operations and are more durable. Sizes are presented by weight, with 20 oz. being the most practical. Smaller sizes do not get the jobs done quickly. Larger sizes cause wringing difficulties and user fatigue.

Mop maintenance

Mop heads must be given maintenance care in order to last a long time. Maintenance means washing them out after each use, hanging them to dry at the end of the day, and machine washing them at least once a week. More stringent cleaning conditions exist for mops used in kitchens and hospitals or where you use germicides and bactericides. It may be necessary to wash mops used for these cleaning tasks after each use. These mops should be isolated for special treatment. Because the weekly washing causes mop ends to fray quickly, purchase mop heads that are tape bound or sewn together at the bottom. Unbound mops will fray and not last.

Spray bottles

You will need spray bottles. They are basically similar and there is little difference in durability based on price, so search for the least expensive model. Purchase sprayers in bulk. They tend to disappear faster than they break.

Housekeeping carts

Keep housekeeping carts functional and simple.

Buffers

Buffers are high ticket items. Most companies make several models and prices vary as much as $500 between companies on similar machines. Look for a very heavy-duty cord, a serviceable motor with good torque, and get an insta-lock head, even if you must pay a premium. Try to get durability at a low cost. Like vacuums, the plugs will be the most replaced item.

Buffing pads

Buffing pads are made by many companies and in several color coding systems. You will need stripping, buffing and scrubbing pads. Get the coarsest stripping pad available to make the stripping task move quickly. Usually the coarsest is coded black. A medium grit scrubber should be chosen and is often coded red or orange. Medium pads can also be used as buffers. Wax becomes shiney from the light melting and movement it experiences when being conditioned with a pad. Buffing pads are made to create a slight friction without tearing the wax from the floor surface. Watch the pad for "loading" with rubbed-off wax. When this happens the pad loses its effectiveness quickly because it will tear at the wax on the floor rather than creating friction. All pads get loaded with old wax, so to increase the useful life of your pads, change them daily. Use a clean pad. After use, place the pad in a bucket full of water and stripper and soak overnight. The next day, remove the pads from the stripper solution and rinse them thoroughly and set them aside to dry. Use the dry pad from the previous day's soaking and repeat the process.

Automatic scrubbing machines

Scrubbing machines are not on the initial training equipment list as they are too expensive to be used solely for training. Automatic machines that lay down cleaning solutions, scrub the floor with buffers, and then wet vacuum up the dirty solution are useful. However, the need for a scrubbing machine should be examined critically. If your facility possesses a scrubbing machine for facility cleaning, the training program may be able to time-share its use for training when it is not being used for cleaning. If your facility needs a machine but does not possess one, your building maintenance department may be willing to share the cost and split its use. A scrubbing machine will be needed to compete with other contractors in the contracting portion of the program, so consider purchasing a machine for training purposes that will be used in contracting later.

Scrubbing machines are available in two basic sizes, 24" and 36" cleaning paths. The 24" will be adequate for all but the largest operations. The scrubbing machine is an item that you should not attempt to economize on. A thousand dollars extra in initial purchase price will save you many thousands in repair bills, lost time, and good will from contracting businesses. Purchase heavy duty batteries and make sure they are well protected. Be sure the charger for the batteries is self-regulating. The charger should, after you turn it on, charge the batteries and turn itself off when the proper charge has been reached. Maintenance free batteries for the scrubber are a plus. The squeegee should be firmly mounted and easy to adjust. Except in cases where you may travel over very uneven surfaces, get solid rubber, not pneumatic, tires. Be sure the vacuum motor is well protected from water infusion and stay away from chain drive scrubbers unless you need power to go up inclines. Purchase a model that has easily accessible pads. Purchase insta-lock pads to outfit the drives. If you must purchase more features than you want or need in order to have access to a reliable maintenance shop, buy the features. A supplier that stocks parts for your machine and makes repairs quickly will be a blessing well worth any extra initial expense. The key to long life for a scrubbing machine is cleaning maintenance and preventative maintenance. Clean it after every use, grease and oil it regularly. Replace damaged parts promptly.

Making a cost effective purchase

Two strategies for purchasing equipment and supplies can be employed that will help stretch your budgeted dollars:

(A) Supplies and equipment can be obtained at a discount by convincing the supplier that you will be a large or repeat buyer.

Ask for a discount from all suppliers. Many respond with a lower price.

When buying more than one item ask for a discount for purchasing both or all equipment and supplies from the same distributer.

For purchases involving multiples of the same item, ask for a discount by virtue of volume.

These strategies can be supported by the promise of repeat business by forming agreements to purchase future items at prices set now. If the supplier is assured of selling 10 barrels of wax within a year, he may fix a price for the entire year to insure that those orders will be placed with his business. This is an inflation hedge as well as a discount opportunity.

Suppliers are accustomed to dealing. If you deal well and fairly, you will be respected by the supplier and because your supplier will likely also supply competitors after you begin to do service contracting, you want and need supplier respect.

Be cautious in your dealing. Take into account:

(1) The lowest price on the wrong equipment does not save money.

(2) Deal with equipment suppliers that have reputable service departments.

(3) Deal with suppliers that have strong reputations for honesty and fair play.

(B) Payment options can be good bargaining points.

A second strategy for lowering retail prices is to provide payment by cash. Make the cash payment option known to the supplier. If the supplier will not lower prices with the cash option, don't pay cash. Make your money work for you. Weigh the carrying charges for credit accounts with the interest you can receive.

A note on suppliers

Your suppliers may have information about contracts that may assist you when entering the contracting field. Do not tell the supplier anything that might tip your competitors to your operation after you begin contracting. Though your supplier is in a position to help you with information, the supplier can also later work against you. The supplier may not be dishonest or unethical, but "loose lips sink ships" is a truism in the contracting field. Don't pry information about competitors from the supplier either, but keep your ears open. Little clues on the contracting business may give your operation a great advantage in this very competitive field.

Suppliers usually have a great deal of technical knowledge about the cleaning field. They will be knowledgeable of new product developments within their product lines. Suppliers also know how to use the products they sell. If the supplier is clearly unknowledgeable about the products they sell, perhaps another supplier will serve you better. You can often obtain this knowledge of cleaning operations at no cost. Ask your suppliers to conduct staff and client training seminars. Because suppliers may see seminars as advertising and public relations opportunities, they will often be willing to donate their time and experience to your training efforts. Also, ask suppliers for opinions on problems. Usually, the supplier's solution will include some specialized product in the supplier's inventory, but the supplier may provide solutions to your cleaning problems that would take you long years of experience to discover. You are never under obligation to purchase the product.

Obtain a subminimum certification

The Wage and Hour Division of the Department of Labor will need to investigate your new janitorial program. Federal guidelines are very specific about how your training clients must be paid. The Materials Development Center has developed an overview of training certifications in slide/sound presentation form. "An Introduction to Sheltered Workshop Certificates" can serve as a good review of certificates and a source of certificate information. You will need to write to the Department of Labor for application information. The Department will aid you in determining the certificate you need. Keep in mind that the disability group and type of facility you operate will, to a large degree, determine what needs for certificates you may have. For instance, if you are training mentally ill individuals with no motor problems, you may elect to pay prevailing wages for similar work in the community and forego a training certificate. If you are training individuals with psychomotor problems that will slow their work considerably, a subminimum certificate will be needed. Your subminimum certificate requirements will help you structure and time frame your training program. The following is an overview of the certificates and their use.

From Department of Labor publication (USGPO)
0-253-331:

> "A sheltered workshop certificate is necessary to employ handicapped workers (clients) of a sheltered workshop at less than the minimum wage under the Fair Labor Standards Act, Walsh-Healey Public Contracts Act, or Service Contract Act. Regulations, 29 CFR Part 525, govern the issuance of sheltered workshop certificates.
>
> Five types of certificates authorizing subminimum wages are available for clients employed in sheltered workshops: Regular program, work activities center (WAC), evaluation, training, and individual rate. A workshop may qualify for all five types of certificates.
>
> Nonhandicapped and handicapped nonclient employees of sheltered workshops doing covered work are required to be paid at least the applicable minimum wage for all work performed and overtime for all overtime hours. A handicapped nonclient employee (Regulations, 29 CFR Part 525.11) with limited productivity may qualify for a subminimum wage certificate under the regulations governing the employment of handicapped workers in competitive industry (29 CFR Part 524).
>
> Generally, certificates are issued for one year and are renewable upon application. For newly established workshops which have no experience, short-term certificates may be issued to allow the workshop time to accumulate the required information, including client earnings data. When applying for a renewal of an initial short-term certificate, the workshop should complete forms WH-226 and WH-227. If information is not

available for a full period as requested by these forms, data available should be furnished. The period to which the data applies should be shown in the form.

A workshop is required to pay all workers in covered work at least the applicable minimum wage until a certificate is issued. Certificates are not issued retroactively.

The definition of a sheltered workshop includes all types of nonprofit agencies having work programs that assist in the rehabilitation or employment of handicapped persons, including programs for the homebound handicapped. Only a nonprofit organization may qualify for a sheltered workshop certificate. Employment of handicapped workers (other than patient workers) at subminimum wages in profit-oriented organizations is governed by Regulations, 29 CFR Part 524. Employment of patient workers at subminimum wages in residential care facilities, public or private, is governed by Regulations, 29 CFR Part 529.

A handicapped worker (client) is an individual whose earning capacity is impaired by old age (65 years, or older, provided ability to perform the duties of the job, equivalent in quality and quantity to that of an average nonhandicapped employee in the same establishment, or in the vicinity, has been impaired as the result of age) or mental or physical disability or injury. Alcoholics and drug addicts come within this definition but the following, among others, do not (unless their earning capacity is impaired by old age, as defined above, or mental or physical disability or injury): Vocationally, socially, culturally or educationally handicapped; chronically unemployed; welfare recipients; school dropouts; juvenile delinquents;

parolees; conscientious objectors, etc.

A regular program is a workshop program other than a work activities center program or evaluation or training program. The minimum wage set in the certificate (referred to, variously, as shop rate, floor rate, floor wage, etc.), which may not be less than 50 percent of the applicable minimum wage applies to all covered clients in the program other than those qualifying for a learner or individual minimum wage. The certificate may provide for one minimum wage applicable to the entire shop, or different minimums for different departments if more than one type of work is performed. It may also provide a learning rate, a minimum wage lower than the applicable workshop or department rate but not less than 50 percent of the applicable minimum wage.

A learning rate may apply during specified learning period(s). When authorized, these may apply: (a) to a client who has never previously worked in the workshop, during an initial break-in period; (b) to a client transferred to a skilled or semiskilled job in the workshop at which he has never previously worked; or (c) to a client who has returned to the workshop after such period of separation as would require relearning.

Evaluation or training programs are required to meet the criteria in section 525.7(b) of the regulations to be eligible for a certificate. If the evaluees or trainees are to be paid less than 50 percent of the applicable minimum wage, the program must receive prior authorization by the State vocational rehabilitation agency that the program(s) meet the agency's standards, or substantially equivalent standards, for such programs.

An individual rate is a minimum wage for a particular individual which is less than the regular program minimum wage. On an individual rate below 50 percent of the applicable minimum wage, the application must have prior state agency certification that the individual's earning capacity is so severely impaired that he is unable to engage in competitive employment. In no case may an individual rate be less than 25 percent of the applicable minimum wage.

In order to qualify as a work activities center (WAC), among other requirements, the clients' physical or mental impairment must be 'so severe as to make their productive capacity inconsequential.' The test of inconsequential productivity for all clients (covered and noncovered) as a group is that average productivity per client (annual earned income of WAC less cost of purchased materials used, divided by average number of clients) is less than $1,775 effective January 1, 1981. An alternate means of meeting the WAC test is available for a workshop that pays piece rates to more than 50 percent of the WAC clients. Under this test, the average annual wage (total annual wages of clients divided by average number of clients) per WAC client must be less than $1,275 effective January 1, 1981.

An entire facility or a department of a facility may qualify as a WAC. In the latter case (dual program), the WAC must be physically separated from the other programs, such as regular program or certificated evaluation or training program or certificated evaluation or training programs, and have separate supervision and records.

> Any clients whose productivity substantially exceeds the average for determining qualification of a work activities center may not be employed under a WAC certificate. Substantial production for this purpose is considered to be client earnings which regularly are 50 percent of the applicable minimum wage or more over a recent consecutive three month period. A few such clients in a WAC may be issued subminimum wage certificates under regulations governing employment of handicapped workers in competitive industry, if no other suitable employment opportunities are available to them. The production, earnings and number of clients certificated under Regulations, 29 CGR Part 524, shall be included in the calculations to determine whether the shop as a whole meets the WAC tests for certification."

Facilities wishing to file for the various types of certificates should contact their local office of the Department of Labor's Wage and Hour Division. Facilities should file the forms indicated in Figure 2.

Three certificates (see Figure 2) are most likely to be used in the janitorial training and service contracting program.

(A) A training certification approved by your state vocational rehabilitation office.

(B) A regular program certification.

(C) Individual rates for marginally functioning clients who are no longer covered under the training certificate but working at less than a 50% work pace.

Certificates structure your program to assist disabled workers in gaining skills. Our next topic is tying all the parts of the program together.

	TYPE OF PROGRAM OR CERTIFICATE	FORM(S) TO BE USED
1.	Newly established workshop (regular program or WAC)	WH-373
2.	Established regular program	WH-226 & WH-227
3.	Established WAC	WH-226 & WH-227
4.	Evaluation and/or training program (rate requested less than 50 percent of applicable minimum wage)	WH-247 (single form may be used for all such programs)
5.	Evaluation and/or training program (rate requested 50 percent or more of applicable minimum wage)	WH-247 (single form may be used for all such programs)
6.	Individual rate/original application or when directed (rate requested less than 50 percent of applicable minimum wage)	WH-249
7.	Individual rate/original application or when directed (rate requested 50 percent or more of applicable minimum wage)	WH-249
8.	Individual rate-renewal application (unless otherwise directed)	WH-227 (included with information supplied when filing for regular program certificate)

FIGURE 2: Department of Labor Wage & Hour Subminimum Certification

Client movement patterns

A flow plan of client services from referral to discharge will need to be developed. One model (see Figure 3) for client flow contains: referral, case history developed, vocational evaluation, admission to training program, possible movement into contracting program, and discharge.

Decision making procedures will need to be established for each part of the flow plan. Some of the referral and discharge procedures may have already been developed by your facility. If so, review the procedures for applicability to your program. The addition of program information to any existing procedures may quickly make the process viable. If procedures are not in place or will not work with the addition of janitorial training and service contracting program variables, you will need to develop these procedures.

Referrals are generally handled by a department in the agency specifically designated to process client applications. The department gathers historical and evaluation data about the prospective client and routes their findings to the program most appropriate to provide training to the client. The person charged with processing initial referrals should develop procedures to guide information gathering.

Esser (1980) stressed the collection of information that quickly leads the case worker to the client's specific needs for vocational evaluation. The facility intake case worker begins with a standard agency application that identifies already available sources of information. The potential client should be interviewed to gather basic information. While the information is being gathered, the client should sign information releases for documents from other sources. Other agency or program needs for publicity

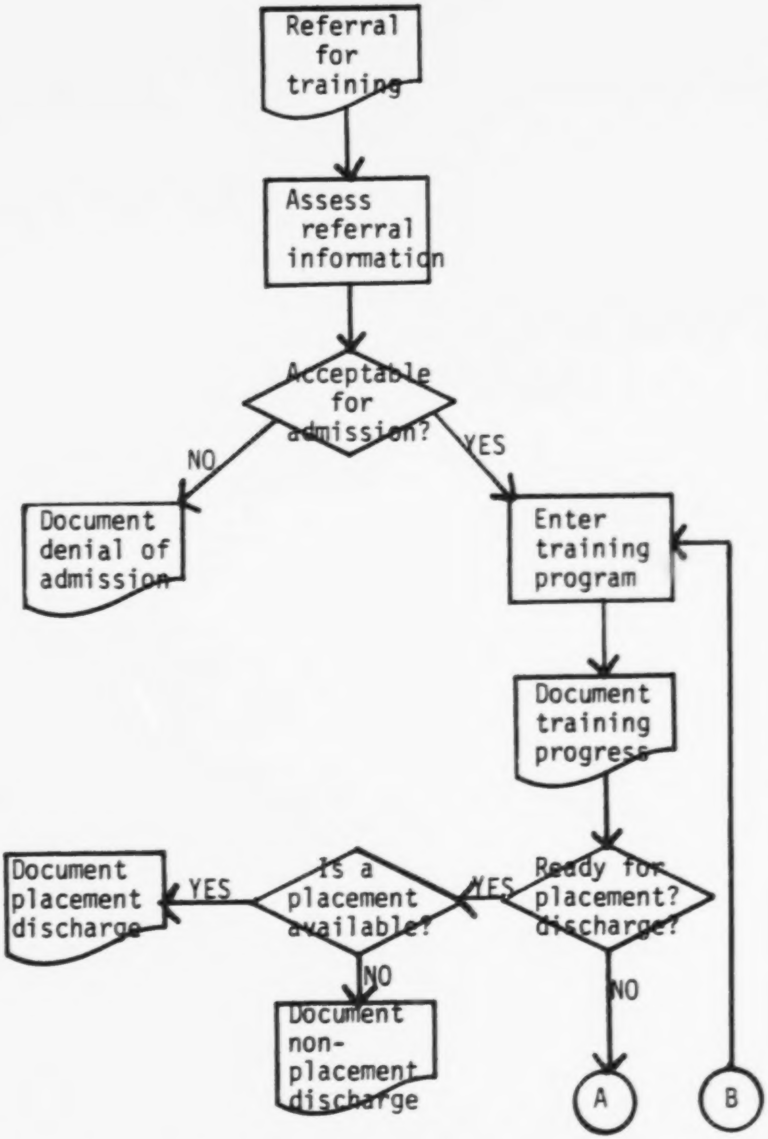
Referral for training
Assess referral information
Acceptable for admission?
NO
YES
Document denial of admission
Enter training program
Document training progress
Ready for placement? discharge?
YES
NO
Is a placement available?
YES
NO
Document placement discharge
Document non-placement discharge
A
B

FIGURE 3: Decision Making Flow Plan

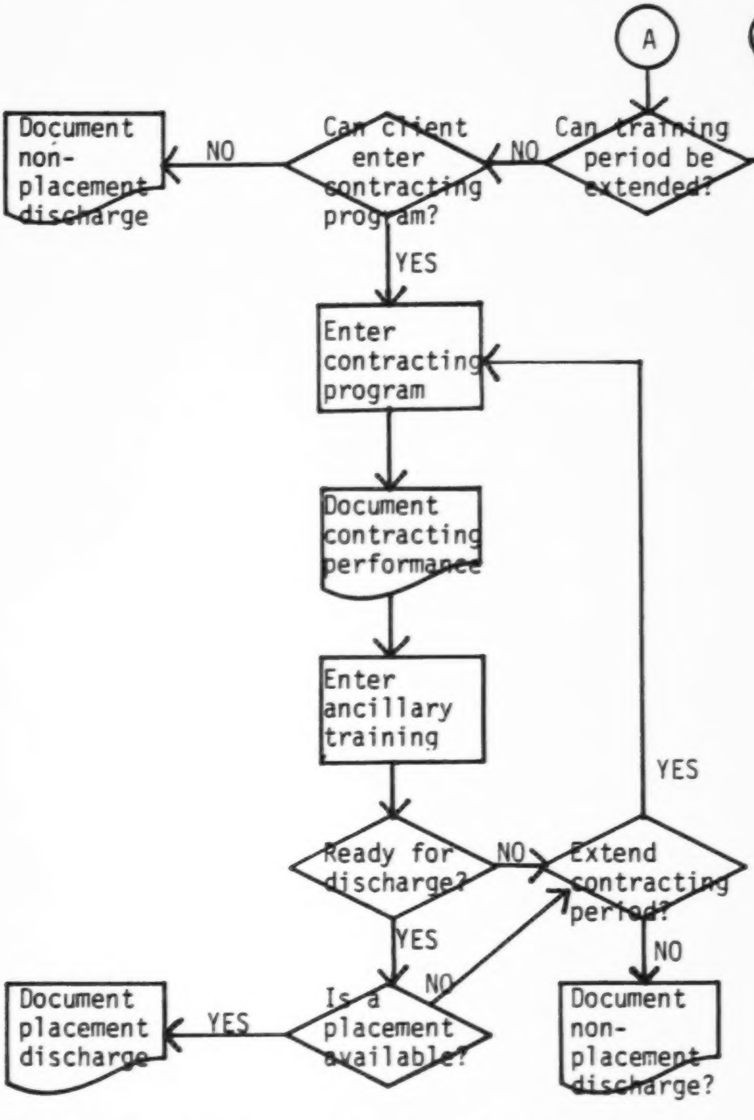
A
B
Document non-placement discharge
NO
Can client enter contracting program?
NO
Can training period be extended?
YES
YES
Enter contracting program
Document contracting performance
Enter ancillary training
YES
Ready for discharge?
NO
Extend contracting period?
YES
NO
NO
Document placement discharge
YES
Is a placement available?
Document non-placement discharge?

FIGURE 3: Continued. Utilization of this flow pattern, along with criteria for movement through the pattern, should enable team members to know alternatives and directions for the client.

releases, medical releases, or liability releases can be obtained while the client is available following an information gathering interview. Also, at this time, general agency or program information may be conveyed to the potential client.

If the case worker will not make the entry decision, it is wise to schedule a separate interview with the decision maker or include the decision maker in the initial interview. After receiving referral information requested from other sources, the case worker will determine if enough information is present to make or allow another to make a decision pro or con for program admission.

To follow the training flow plan, we will assume a positive admission decision has been made. After the admission decision has been reached, the client must be consulted. If the client agrees to program entry, an entry date must be mutually agreed upon. When that date arrives the client must be oriented to the facility and to the training program. Attention should be given to the role that the client is expected to play in training. A contract for training should be developed specifying:

(A) The client's role in training.

(B) How pay will be determined.

(C) The length of the stay in the program.

(D) Specific rules and regulations to which the client must adhere, such as:

  (1) Dress rules,
  (2) Smoking rules,
  (3) Attendance rules.

The training contract serves several purposes. It sets ground rules for the client performance. It provides disciplinary courses of action in case that action is needed and explains them to the client. It makes the client responsible for part of his training and accountable for his actions during training.

Other information may also be conveyed to the client immediately upon admission. The client contract will not have all information that the client will need during training. More specific information on relationships between trainers and other program personnel, lunch times, break periods, benefits provided, procedures for obtaining time off, what to do in case of illness, etc. is conveyed through the use of a client handbook. Use of a handbook gives the client a reference point for later examination.

Other information may also need to be obtained from the client. The client must sign a W-4 statement, so tax withholding can be accomplished, and any benefit forms or medical histories must be obtained.

After all the information needs are satisfied, the instructor can begin curriculum determined activities. Admissions to the training program should be staggered one to two weeks to allow the instructor to integrate each client into the training curriculum and orient the client to the training surroundings. Staggered admissions will also allow for a smoother transition period between admissions and discharge. In the event that a discharge occurs before another client admission is set, the system of staggering admissions will incur less daily revenue loss than the system of entering a full complement of clients on a "class" basis. This is due to the fact that a new client can be entered immediately without waiting for the next "class" to start.

ADMINISTERING TWO CRITERION CURRICULUMS

Earlier, we discussed the need for curriculums to have passing criteria for both the knowledge of task to be performed and the skill of performance. In such a curriculum, instruction precedes production.

First, a task is introduced to the client. Assume dust mopping to be the initial task presentation. The instructor follows the curriculum presentation through the dust mopping instruction. At the conclusion of the presentation, the instructor administers a knowledge test in written, oral, or demonstration form depending on the disability group and the task being presented. The acceptable passing criterion will be compared with the test results. If the client passes the knowledge test based on scoring more answers correct than the number needed to reach the criterion, the second phase of instruction can begin. If the criterion level of correct responses is not reached, further instruction in the dust mopping task must be given, prior to assigning the client to a performance area. This requirement to pass the knowledge phase before performance assessment, is based on the assumption that adequate performance cannot be exhibited until the correct procedures are known. Some curriculums may have a performance evaluation stage in which tasks are assigned prior to instruction to determine need areas. It is preferable to complete all instruction first to insure all information is conveyed to each client in similar manners and to support claims for having provided adequate training.

The performance stage of instruction involves assigning the client an area to clean. In our example, the client has passed the knowledge test on the dust mopping task, so the cleaning task assigned will be dust mopping.

The instructor has several responsibilities during the performance stage of instruction. The instructor must:

(A) Insure that the client knows the proper assignment.
(B) Insure that the client knows the location of the equipment needed to complete the assignment task. (Such as, dust mop, treatment, dust pan, scraper, waste container.)
(C) Begin timing the task after previous assurances have been made.
(D) Observe the performance of the task to insure correct procedures are being used.
(E) Record the time the client took to complete the task.
(F) Check and record the client's work for quality.
(G) Discuss the work quality and the procedures used with the client.
(H) Ask the client to correct the quality problems.
(I) Time the correction of the quality problem areas.
(J) Add the correction time to the initial timing.
(K) Recheck the work for quality.
(L) Continue until the task is completed to community standards of cleanliness.

Determining client productivity

For the instructor to use the information gathered from the assignment of the dust mopping task, "normal times" must be determined for each of the areas in which the client will be performing work. "Normal times" are set either by comparison of the square footage of the area with standardized times for similar areas, or by the completion of time studies. Time study techniques can be obtained from the MDC publication, Workshop Production Management: Motion and Time Study, (Hietala, 1975). Standardized normal times are available from MDC in the Navy's manual, Janitorial Formulas. Some of the basic formulas are included in Appendix A.

If you can obtain them, the best "normal times" are those that are required by the employers in your area. Ask employers how much time they allow for tasks. Use employer's figures to determine your "normal times." "Normal" times are set to acceptable quality so a second timing (for the correction of errors) is added to initial timings. Then the total time for the completion of the task is compared with the "normal" time for the completion of the task to determine a percentage score for work pace.

Errors will be compared to the "normal quality" rating to obtain a percentage score. The errors will be compared to the "normal quality" rates after the initial timing too because it is assumed that acceptable quality is reached before stopping work on the task.

Percentage scores serve several important functions:

(A) The scores will determine when the client has reached a passing score for the performance tests. The client's ability to complete the skill accurately and within a normal time frame will be important for the client to compete in the job market.

(B) The scores will aid the instructor in determining recommendations for retention or discharge from the training program. Criterias should be tied to the performance standards required for similar work in the community where the client will be obtaining work.

(C) The scores will be used to objectively determine the pay the client will receive for completion of the task. When the completion of the performance test also provides a cleaning service for the area in which the test is administered, the client must be paid for the work completed. If the area was already clean and was specially prepared for the test, this payment may not apply.

During instruction, no work is performed by the client so no payment will be given to the client. During the performance stage of the curriculum, however, work will be performed, so payment is necessary while the client does performance tests. Clients must be paid by the wage and hour standards set by your subminimum certification. Usually, the amount of pay is determined by the speed at which a person works and the quality of the work. Most important of the two measures for performance is speed.

Consultation with the local office of the Department of Labor will help you determine how important speed of work must be in relationship to quality of work. It is very likely that speed and quality will be expressed as percentages of a total productivity score. The Wage and Hour Division of the Department of Labor will likely accept your speed and quality relationship if it is based on 90% speed and 10% quality.

For work with disabled clients, the percentage in the relationship actually depends upon another percentage score: the percent of normal for both speed and quality. A standard speed and quality relationship for establishing productivity can be expressed as a formula:

$$\left(\begin{array}{lcl}\text{percentage} & & \text{percentage}\\ \text{of normal} & \times & \text{of speed}\\ \text{speed} & & \text{component}\end{array}\right) + \left(\begin{array}{lcl}\text{percentage} & & \text{percentage}\\ \text{of normal} & \times & \text{of quality}\\ \text{quality} & & \text{component}\end{array}\right)$$

$$= \text{Productivity}$$

This could be stated in a 90% speed and 10% quality relationship as:

$$(\%\ \text{of normal speed} \times .90) + (\%\ \text{of normal quality} \times .10)$$

$$= \text{Productivity}$$

AN EXAMPLE

John Client was referred to the janitorial training program in your facility. Case workers had gathered information that indicated that John could successfully complete the training program in janitorial services. You agreed. John desired to work as a janitor and entered the program.

After receiving orientation to the facility and program and providing all information and signatures necessary to complete registration in the janitorial program, John was given his first lesson in dust mopping by Jane Instructor.

Following procedure for the janitorial curriculum's dust mopping task, Jane instructed John in the proper method of dust mopping and introduced John to dust mopping tools and chemicals.

Jane then asked John a series of questions about dust mops and dust mopping procedures. John answered 19 of the 20 questions correctly. Jane went back over the information on the question that John had missed. Her curriculum guide noted that she could consider John acceptably knowledgeable on the dust mopping task if he answered 18 of the 20 questions correctly. She noted on his records that he had reached pass criteria in dust mopping knowledge.

Later that day, after instructing John on several other janitorial tasks, Jane assigned him to dust mop the north hallway. Though John had been instructed in window washing and dry vacuuming as well, he did not pass the knowledge tests on either one. Therefore, Jane could only assign John the dust mopping task.

Jane showed John the hallway she wanted him to dust mop. She also showed John the broom closet where all the materials he would need were stored. When she was satisfied that John knew what was expected, she told him to begin and started timing the task. Jane noted the time as 1:24 P.M.

While John worked, Jane would periodically check his progress and his dust mopping method. She noted that he had started dust mopping in the middle of the hallway and was working toward the edges, just the opposite of the instruction he had received that morning. She did not stop his work, but recorded the error for later discussion.

At 1:48 P.M. John told Jane that he had completed dust mopping the hallway. Jane noted the time in the record and checked the hallway for dust residue. She found two areas where dust had been missed. Jane informed John that he would need to finish those areas.

John began to correct the areas of poor quality at 1:55 P.M. and completed the extra work at 2:07 P.M. Again, Jane checked John's work, and found it satisfactory.

Before assigning John another area to clean, Jane discussed his performance on dust mopping the hallway, with emphasis on dusting the edges before the center.

Later, she assessed John's performance for work pace and work quality percentages. From Jane's records she learned that John had taken 36 minutes to dust mop the hallway.

	Start	Finish	Elapsed
1st trial,	1:24	1:48	:24
2nd trial,	1:55	2:07	:12
TOTAL TIME			:36

Also from her records, she noted that John made two quality errors.

Jane then consulted the "normal" time and quality standards for the hallway. The hallway was 10 feet wide and 100 feet long, an area of 1000 square feet. This area had been broken into squares of 10 feet by 10 feet for quality determination, so Jane knew John could have made errors in ten locations on the hallway floor. In fact, he made errors in 2 of the areas, so Jane entered a quality score of .80 for John's dust mopping task. Two errors subtracted from ten possible areas equals eight areas completed correctly. Eight areas correctly completed divided by ten areas that could have been completed correctly equals .80 of the hallway completed correctly.

Total areas 10
Total errors - 2
Total correct 8

$$\frac{\text{Total correct areas}}{\text{Total areas}} \qquad \frac{8}{10}$$

8/10 = .80

Jane then consulted the table of "normal" times to determine how quickly John had completed dust mopping the hallway relative to other workers. Under dust mopping she found: (See Figure 4).

Jane knew that the hallway was obstructed by only one large pipe along the side and was 1000 square feet in area. The table indicated that (using reference I) for every 100 square feet of area completed, John should have spent .0086 of an hour completing the dust mopping task. To convert this to minutes, Jane multiplied .0086 x 60 and determined that it should take .516 minutes to dust 100 square feet.

Time in hours to complete 100 square feet .0086

60 minutes in an hour x 60

Time in minutes to complete 100 square feet .516

Jane reasoned that she should multiply .516 by ten because 1000 divided by 100 equals ten. She multiplied .516 by ten to arrive at the time of 5.16 minutes for the "normal" worker to dust mop the hallway.

Reference	Operation	Unit	Leveled time
I	Dust mop floor, obstructed by 1 item of furniture	100 sq.ft.	.0086
II	Dust mop floor, obstructed by 2 to 6 items of furniture	100 sq.ft.	.0164
III	Dust mop floor, obstructed by 7 items of furniture	100 sq.ft.	.0206
IV	Sweep floor, obstructed by 1 item of furniture (24" broom)	100 sq.ft.	.0123
V	Sweep floor, obstructed by 2 to 6 items of furniture (24" broom)	100 sq.ft.	.0195
VI	Sweep floor, obstructed by 7 items of furniture (24" broom)	100 sq.ft.	.0231
VII	Dust mop landings	100 sq.ft.	.0100
VIII	Sweep landings (24" broom)	100 sq.ft.	.0213
IX	Dust mop stairs (5 ft. to 8 ft.)	8 steps	.0126
X	Sweep stairs (24" broom) (5 ft. to 8 ft.)	8 steps	.0170

FIGURE 4: Dust mopping formulas from NAVDOCKS publication Janitorial Formulas (formula PWJ-6, February, 1965.)

Total area
to be cleaned 1000

100 square
foot unit $\div$ 100

10

Time in minutes
for 100 square foot unit .516

Number of 100 square
foot units x 10

NORMAL TIME FOR TASK
in minutes 5.16

John had taken 36 minutes to dust mop the hallway, much longer than the "normal" worker. Jane wanted to express this longer time in a percentage score that related John's time to normal workers, so she divided John's time into the time the "normal" table indicated the dust mopping of the hallway should have taken.

$$\frac{\text{Normal time}}{\text{Actual completion time}} = \text{Percentage of "normal" speed of work}$$

$$\frac{5.16}{36} = .143 \text{ or } 14.3\%$$

Jane made note of the time and quality "normal" figures for the hallway. She knew that John and other clients would clean the hallway in the days to come. She could figure the client's quality and work pace percentages without having to refigure the "normal" time for the area by keeping the figure separate.

Now Jane wished to convert John's quality and work pace percentages into a "productivity" percentage. She could use the percentage figure to compare John's performance with the performance of other clients in the program, and figure out his pay check. Jane referred to the productivity formula of:

(% of normal speed x .90) +
(% of acceptable quality x .10)
= Productivity

and entered the figures from her performance record:

$$\frac{(.143 \times .90)+(.8 \times .10)}{100} = \frac{20.87}{100} = .2087 \text{ or } 21\%.$$

Jane now knew that John's performance on dust mopping the hallway was 21% of what would be expected of him on a job. She would use this figure to determine how much he would be paid.

John's time on dust mopping the hallway was added to all of the time he spent on performance tasks during the pay period. He worked 6 hours and 30 minutes that period or 6.5 hours.

During the pay period, John worked on six jobs and Jane figured productivity percentages for each of the jobs. They were: 21%, 32%, 28%, 19%, 41%, 23%. Jane added the percentages together and divided by the total of 6 to determine an average percentage for the pay period:

$$\frac{21 + 32 + 28 + 19 + 41 + 23}{6} = \frac{164}{6} = 27.3\% \text{ or } .273$$

Jane's supervisor checked with the Department of Labor, Bureau of Labor Statistics and the local Job Service office and discovered that the prevailing average wage for janitorial workers in the community was $3.60 per hour. Because Jane's

> program had been granted a sub-minimum wage certification from the Department of Labor to provide training wages, Jane knew she could pay John the amount of the prevailing wage that he had actually worked. So:
>
> $$\$3.60 \times .273 = \$.98$$
>
> Therefore, Jane will pay John $.98 for each of the 6.5 hours that he worked or $6.37 (.98 x 6.5).
>
> As John received instruction, he passed more of the knowledge tests and was allowed to work on a larger number of the performance tasks in the janitorial program. With practice on the performance tasks, John's times were recorded more similar to the "normal" times and his pay checks increased.

In training, work pace and quality percentage scores will be supplemented with other instruments of rating to determine if the rehabilitation and learning experience is effective. Many different types of rating instruments are available and many facilities develop their own. Whatever instrument you use, it should take into account work performance and behavior that the employers in your community find important for hiring personnel and the inappropriate behavior that would result in dismissal from a position. An example of a rating scale is found in Figure #5.

In this example, the instructor is asked to choose the statement that best describes the client's behavior and performance. Note that each statement is made in concrete terms, such as "loses work time once per week" wherever possible. This makes the entry less subject to instructor bias. Each of the entries is assigned a number based on the relative weight of the area to the total evaluation. The numbers are totaled to arrive at a percentage figure that represents the activity of the client in the program.

Let us use John Client as an example. The instructor, Jane wishes to further assign an overall rating for John's work performance and behavior. Using the Rating Scale found in Figure 5, Jane chooses a statement for John's actions from each grouping of statements. She notes that John loses work time by socializing once per week, so she enters the score for that statement of .06. Next Jane notes that John will stop work when he encounters a problem, and does not ask for assistance, so she enters .015 as a score for that statement. Jane also enters scores of .11 and .03 for statements dealing with attendance and dress.

Now Jane adds the scores for each area in the behavior scale.

$$.06 + .015 + .11 + .03 = .215$$

The total of .215 Jane enters as the TOTAL for the work behavior that John has exhibited during this rating period. Jane wishes to know how just this work behavior area relates to normal workers, so she multiplies John's score by 3.2 because these four items are just under one third of the total points for the entire scale.

$$.215 \times 3.2 = .69 \text{ or } 69\%$$

Jane then goes on to the work performance scale. She notes that John needs supervisory prodding to maintain attention to his work, and assigns .07 as a score for this statement. Then Jane notes that John can only perform one of the 18 tasks needed by the training program, so she assigns John .02 for his knowledge of tasks.

Now Jane refers to her records for John's work pace and quality of work scores. John's work pace percentage is multiplied by .41 and his quality of work percentage by .05. These multipliers relate each of the areas to the total rating scale within the relationship previously discussed, of 9 to 1.

.143 x .41 = .06 (work pace)

.80 x .05 = .04 (work quality)

Now Jane adds the scores she entered for John's work performance in all four areas.

.07 + .02 + .06 + .04 = .19

Jane wishes to know how these factors for performance relate to normal performance scores, so she multiplies John's score of .19 by 1.4 because these four items are just over two thirds of the total points for the entire scale.

.19 x 1.4 = .27 or 27%

Jane now needs to obtain John's rating for the entire behavior and performance scale. She therefore adds the two TOTAL scores for each main grouping of .215 and .19. This gives John a total rating scale point accumulation of .405, or a rating of 40.5%

.215 + .19 = .405 or 40.5%

It must be noted that John's score of 40.5% is not the rating used to determine his pay. Pay is determined only by work pace and work quality.

Work Behavior and Performance Rating Scale John Client

Choose one statement from each grouping and put points in score area.

WORK BEHAVIOR

Engages in arguments or fights that stop work for 5 minutes or more.	(.02)
Loses work time by arguing or socializing 4 or more times per week	(.03)
Loses work time by arguing or socializing 2 to 4 times per week	(.05)
Loses work time by arguing or socializing 1 time per week.	[✓ (.06)]
Looses no work time during a weeks work.	(.07)
Has particularly cooperative attitude that helps work effort.	(.09)
Total for ABILITY TO WORK WITH OTHERS.	.06
Has damaged equipment when problems developed during rating period.	(.01)
Stops work when problems develop and seeks no assistance.	[✓ (.015)]
Stops work when problems develop; sometimes seeks assistance.	(.02)
When problems develop, seeks supervisory assistance.	(.025)
When problems develop, sometimes attempts to solve without assistance.	(.03)
When problems develop, attempts to solve and return to work.	(.04)
Total for ABILITY TO SOLVE PROBLEMS.	.015
Has had an absence that was not excused within rating period.	(.03)
Has had an absence that was not excused within last month.	(.05)
Has had no unexcused absences in last month, but is excessively absent.	(.07)
Has had absences averaging more than one per month.	(.09)
Has had absences at less than an average of one per month.	[✓ (.11)]
Has had no absences in last quarter.	(.14)
Total for ATTENDANCE.	.11
Dress is inappropriate for work or has chronically poor hygiene.	(01)
Inappropriately dressed or poor hygiene more than once in rating time.	(.015)
Inappropriately dressed or poor hygiene once during rating period.	(.02)
No incidents of inappropriate dress or poor hygiene during period.	(.025)
No incidents of inappropriate dress or poor hygiene past month.	[✓ (.03)]
Dress and hygiene are appropriate for more than one month.	(.04)
Total for DRESS AND PERSONAL HYGIENE.	.03
TOTAL Work Behavior score...(Add scores from each area.)...	.215
Percentage score Behavior area only...(Total x 3.2)...	69%

FIGURE 5: A sample rating scale for performance and behavior.

Work Behavior and Performance Rating Scale
Page 2

Choose one statement from each grouping and put points in score area.

WORK PERFORMANCE

Does not attend to job with or without supervisory presence.	(.03)
Attends to job, but only with supervisory presence.	(.05)
Attends to job, but needs supervisory encouragement to maintain work.	[✓ (.07)]
Needs direction to return to work once per rating period.	(.09)
Needs direction to return to work once in the past month.	(.11)
Works without supervisory direction or presence.	(.14)
Total for CONSISTANT WORK EFFORT.	.07

Can satisfactorily perform less than 50% of required tasks.	[✓ (.02)]
Can satisfactorily perform 50% to 60% of required tasks.	(.03)
Can satisfactorily perform 60% to 70% of required tasks.	(.05)
Can satisfactorily perform 70% to 80% of required tasks.	(.06)
Can satisfactorily perform 80% to 100% of required tasks.	(.07)
Can satisfactorily perform all tasks; reinstruction infrequent.	(.09)
Total for TASK KNOWLEDGE.	.02

Percentage of Normal work pace.	.143	
Multiply by .41	X .41	
Total for SPEED OF WORK.		.06

Percentage of Normal work quality.	.80	
Multiply by .05	X .05	
Total for WORK QUALITY.		.04

TOTAL Work Performance score...(Add scores from each area.)...	.19
Percentage score for Performance only...(Total x 1.4)...	27%
FINAL RATING SCORE...(Add TOTAL for performance and behavior)...	.405
Percentage of Normal work Performance and Behavior.	40.5%

FIGURE 5: Continued.

TRAINING FOR CRITICAL VOCATIONAL BEHAVIORS

Buehler (1969) asked employers to describe, in action form, critical areas of work performance. The employers were asked to describe actions of "good" employees and actions for which they would be most likely to fire a person. Buehler compiled the answers into a list which he returned to the employers directing them to rank the items in the order of their critical nature to the job performance. The ranked items were then weighed in importance based upon their position in the ranking and the number of times they were cited as important. The following is the resulting list of critical vocational behaviors. Note that positive statements are actions of "good" employees and negative statements are actions that would lead to employment termination:

(1) Reports to work on time.
(2) At work every day except holidays.
(3) Keeps tools and equipment clean.
(4) Keeps necessary records up to date.
(5) When conflicts with others arise he resorts to physical combat.
(6) Keeps work area clean.
(7) Drinks on the job.
(8) Uses narcotics on the job.
(9) Wears required uniform or dress on the job.
(10) Takes company equipment, tools, or products from the working areas without permission.
(11) Makes necessary corrections when supervisor points out discrepancies.
(12) Makes derogatory statements regarding other trainees and supervisors.
(13) Swears loudly so that others can hear.

(14) Telephones if forced to be late because of an emergency.
(15) Turns out quality work rather than fast, sloppy work.
(16) Gives an honest account of his personal skills, knowledge, and work experience.
(17) Learns about new products and new methods when required by the job.
(18) Works scheduled number of hours; takes breaks independently.
(19) Takes necessary security precautions to protect company and personal property.
(20) Notifies appropriate persons of accident within specified time.
(21) Polite to visitors; appropriate to visitors.
(22) Fakes illness to get out of work.
(23) Fills out all papers pertaining to the job accurately.
(24) Operates only the equipment which he is authorized to operate.
(25) Uses sex swear words when secretaries or other females can hear.
(26) Gambles or solicits while on the job.
(27) Does the job he is told to do and the way he is told to.
(28) Conforms to the rules of the organization.
(29) Wears I.D. badge when required.
(30) Is conservative with company materials.
(31) Undermines the authority of a supervisor by talking derogatorily about him in front of others.
(32) Admits he did something if he did it, i.e., doesn't lie or evade.
(33) Checks in for another employee.
(34) Explains and has all absences approved.
(35) Brings personal weapons to work, i.e., knives, brass knuckles, revolvers.
(36) Uses the proper tools for the job.
(37) Tactful in dealing with people.
(38) Refers to other people by their names, not as "gimpy," "nigger," "white boy," etc.

(39) Makes racially discriminatory statements regarding other employees or supervisors.
(40) Personal appearance and grooming appropriate for the work situation.
(41) Works without constant and immediate supervision.
(42) Leaves other employees' and company equipment and tools alone unless explicitly told or given permission to use such materials.
(43) Obtains permission before making personal calls on office telephone.

(Table from Buehler, 1969, pp. 16-17.)

This ranking quickly shows which areas are important to emphasize in training. Note that the positive statements are indications of willingness to hire or retain workers by evaluating their performance highly, whereas negative statements are an indication that the employer would fire or tend to evaluate performance negatively. Area employers of janitorial and housekeeping personnel should be polled to insure rankings are accurate in your job market. See if the area employers also place similar emphasis on these items. If there is a difference of opinion that many area employers (or significant employers) state, use the area employer's opinion in your client evaluations rather than the Buehler table. Contact with area employers on this matter could also be used to inquire about the standards area employers set for speed and quality.

Tesolowski (1979) discussed general and specific areas toward which training programs must be geared in order to optimize the clients' chances at obtaining and retaining employment. Of greatest importance, according to Tesolowski, is the completion of job readiness training.

Tesolowski also discussed the Greenleigh Associates

1975 study mandated by the 1973 Rehabilitation Amendments. The Greenleigh Study indicated that job readiness training (JRT) (training in placing applications and conducting interviews) was the single most important factor in gaining competitive employment, regardless of skill development. Other studies (Azrin, Flores, & Kaplan, 1975; Brewer, McMiller, & Ray, 1975) reiterate that general skill development coupled with JRT should be considered before specific skill development programs. The success of the JRT was noted as being greatly influenced by the choice of instructor.

Later studies done by Buehler in 1969 and validated by other studies by Hoffman and Kraut in 1971 indicated that beyond local company standards, work pace is not a critical factor in gaining and keeping employment. A general work pace level is implied for employment, but seldom (except in piece rate industries) is a fixed quantity expected. Korman in 1971 found that not only is the work pace variable by local industry, but it is also influenced by the perceptions of a handicapped worker's co-workers and foremen. Essentially, outside of blatantly non-industrious behavior, work pace is not considered a critical factor in employment.

The stress that you put on work pace will be determined in a large part by what the employers in your area tell you about their work pace requirements. If a major employer says that his employees must clean an area in one hour or they will be replaced, you should use that as your standard for work pace. However, if the employer with fast work pace requirements will hire only one of your clients per year and the other employers in the area have a more lenient standard, the more lenient standard may be the better standard to apply to your client evaluations.

Guides to work pace determinations are also available. NAVDOCKS, Janitorial Formulas, states janitorial and housekeeping tasks in terms of square feet per hour using leveled normal times. In the absence of, and as a comparison to the area employer norms, these standards are top-notch and are superior to use in conjunction with agency done time studies. However, NAVDOCKS standards and information from employers will not cover all tasks for which you will be training. In some cases, time studies will be the only way to determine proficient behavior.

Many employers will respond in vague terms to the query for work pace information. Service operations do not tend to work with the same sort of concrete data that manufacturers demand. Some hotels will state a number of minutes per room or number of rooms per shift, but most service employers will only speak of the employee completing assigned jobs, sometimes vaguely assigned, in the hours of their shift. NAVDOCKS standards will be good for putting your operation on equal footing between the training program and the service contracting program. You must use the same evaluation criteria for both areas.

LENGTH OF TRAINING

Time economy and dollar savings go hand-in-hand. Service providers must recognize that funding sources that support clients in janitorial training desire the most effective training in the least amount of time. The issue of how long a training period should be to effectively and efficiently provide janitorial training is raised.

The question of how long to set the training periods will be answered by a compromise among the following factors:

(A) The period will be influenced by the type of curriculum you decide to use.

(B) The period will be influenced by the number of clients in training per instructor assigned.

(C) The period will be influenced by the disability group your facility is servicing.

(D) The period will be influenced by the referral source, with different funding agencies requiring differing types of evaluation and training.

(E) The period will be influenced by the availability of training money in your area.

(F) Finally, the training period will be defined by your wage and hour subminimum certificate.

A 40 day training period is recommended in the janitorial training program, with all curriculum tasks to be tested for knowledge of task within this period. This recommendation is based on the use of the procedure based training curriculum, Custodial Training, developed by the Columbus Community Center in Salt Lake City, Utah. Those individuals not reaching pass criteria during the initial training period may have their training period extended, unless the client is authorized by their funding body for the initial period only with no extensions available.

Written procedures should indicate when a client in the training program will need to be assessed for discharge from the program. Discharge actions occur in several forms:

(A) The client can request discharge (quit).

(B) The client can break rules and be discharged for misconduct.

(C) The client can successfully reach pass criteria for discharge with the intent of receiving job placement in the community.

(D) The client can reach the end of the training period and not reach criteria for successful completion of the program.

This model of training, service contracting, and ancillary training is designed to allow the service contracting program to serve the needs of the client who does not reach passing excellence on curriculum items within the confines of the normal training period. Your training period should be designed to allow the majority of your clients to complete the training and move into the community, but if a client has difficulty in completing the requirements of your curriculum, the service contracting program can allow a longer period of training in janitorial tasks to be offered.

JANITORIAL CONTRACTING

WHAT IS CONTRACTING?

Contracting refers to the set of agreements two or more parties make among themselves to govern their interaction in providing an exchange among the parties. Contracts can be legal agreements that specify how two or more parties will interact. Before we look at contracts and the role they play in the provision of janitorial or housekeeping service, some ground work for the development of the contracts must be laid.

Sometimes referred to as building maintenance contracting or contract maintenance service, janitorial contracting is the practice of cleaning the premises of another organization for a specific amount of remuneration. Like the producers of goods, service contractors wrestle with the difficulties of providing service. At times, proving that service provision has occurred can be elusive:

(A) Services are not completely tangible. Every person has a different conception of what a "shiny" floor looks like or what a well vacuumed floor will have in the way of dirt particles. In some areas, quality will be perfectly clear, such as a window is either clean or it has dirty spots.

(B) Services cannot be stored. The contractor cannot substitute a cleaning from inventory, like a part from the storeroom, when production is delayed. Services are inseparable from the service providers.

(C) Services are variable. Group A will clean in a different manner than group B in both procedural and quality ways.

THE ROLE OF QUALITY

Contracts are awarded on the subtle mix of competitively low prices and good reputation. Competitively low prices are stressed because extraordinarily low prices are suspect in any industry. A business that encounters a bid or quote estimation that deviates significantly from the others received will suspect:

(A) That a gross error in judgment of the difficulty of the service has been made.

(B) An arithmetic error has been made. (An indication that poor supervision may be provided after the award of the contract because errors in the bid were not detected.)

(C) The prospective contractor is planning to use less than standard supplies, tools, or personnel.

In any case, the business is likely to eliminate the contractor from the bidding as a high risk.

A good reputation is only gained from contract experience and only earned by providing quality service. Quality is always paramount. Some businesses may prefer to obtain cheap "lick and a promise" cleaning, but these contracts will tarnish your reputation. Though it may seem that any job is better than no job, the long-term costs associated with damaged reputations through doing "lick and promise" contracting will be great. Contracts are awarded on the subtle mix of competitive pricing and reputation. Choice contracts don't go to low prices, they go to the reasonable prices from reputable contractors.

FAIR COMPETITION

How to know if prices are competitive:

(A) Do you get some of the contracts bid upon?

If there are three contractors in town competing for jobs and you are awarded none, then the prices you quoted are probably not competitive or your reputation may be in question. You can ascertain if your reputation is the problem by asking the businessmen with whom you have placed bids. Most will tell you honestly. Many will also tell you the winning bid. Government owned contracts always notify you of the winning bid. On the other hand, if you do get all the contracts you bid on, your prices may be low. See if the businessmen will tell you the next closest bid. The bid spread is more difficult to elicit than the winning low bid because the business will rightly suspect that you will want to increase your bid in the next contract period.

(B) Do you make or lose money?

Many not-for-profit contractors expect to lose money, chalking the loss up to hiring disabled workers and recovering losses from public funds. This may be an erroneous assumption.

If a profit contractor was asked to do a job on which he would estimate that his employee (using standard performance tables) would spend one hour and his rate for the employee is $3.35/hour, the contractor should have a total direct labor figure of $3.35/hour.

If the not-for-profit contractor was asked to do the same job, he should estimate that his employees should spend a total of one normal hour (using standard performance tables), the same time that the profit contractor estimated. The not-for-profit contractor, however, has three employees to do the job, all working at 50% of normal. He would expect that the job would take 40 minutes for his employees to complete and that he would pay each $3.35/hour multiplied by 50%, multiplied by two-thirds of an hour, or $1.12 (rounded figure). For the three workers then, his direct labor for the job will be $3.36, slightly more than the profit contractor's direct labor. These calculations are given below.

Normal worker

1 worker at 100% productivity working for
1 hour at $3.35/hour.

1 x 1.00 x 1 x $3.35 = $3.35

Disabled workers

3 workers at 50% productivity = 1 worker
at 150% productivity.

3 x .50 = 1.50 = 150%

Therefore:

150% productivity = 1.5 normal workers

60 minutes divided by 1.5 normal workers =
40 minutes working time.

3 workers at 50% productivity working for
2/3 hour at $3.35/hour = $3.36.

(3 x .5 x 2/3 x $3.35) = $3.36 (rounded figure)

Actually the not-for-profit contractor would probably not have three workers that were performing at exactly 50% of normal working together. Indeed, output is variable every day so that he couldn't always expect to get an exact 50% workday. In addition, set-up and operations with three people would eat up some of the 40 minutes so that the time wouldn't be a clean one-third split even if there were actually three 50% workers. Therefore, actual direct labor will probably be a little over the profit contractor's figures. Other possible areas of discrepancy between the profit and not-for-profit contractor's direct labor figures occur because of the inexact nature of the evaluation of performance and the error factor that creeps into the best normal times.

Let's do an example using three workers who aren't quite so equal for the sake of clarity:

3 workers at 42%, 23%, 78% productivity =
1 worker at 143% productivity.

$$(.42 + .23 + .78) = 1.43 = 143\%$$

Therefore:

143% productivity = 1.43 normal workers

60 minutes divided by 1.43 normal workers =
42 minutes working time.

$$\frac{60}{1.43} = 42$$

$$(42 \text{ minutes} = .7 \text{ hours})\ \frac{42}{60} = .7$$

1 worker at 42% working for .7 hours at $3.35/hour
1 worker at 23% working for .7 hours at $3.35/hour
1 worker at 78% working for .7 hours at $3.35/hour

(1 x .42 x .7 x \$3.35) = \$ .98
(1 x .23 x .7 x \$3.35) = .54
(1 x .78 x .7 x \$3.35) = 1.83
\$3.35

So the results are still the same with a varied work force. If normal times are computed on a standard basis and clients are accurately assessed on the basis of these normal times, the direct labor paid out should be close to the direct labor any contractor would expect to pay out. Therefore, the use of subminimum certificates should allow the same payroll figures with disabled workers as with normal workers by allowing you to pay your disabled workers for their actual contribution to the work effort. If you are paying more or less in total amount of wages than you would expect to pay a normal crew, suspect one of two things or both are occurring:

(A) The way that normal times are figured is incorrect and the times are wrong.

(B) The way that productivity (work pace and quality) is figured is incorrect and the estimate of the percentage of normal that your clients are performing at is wrong.

These are serious errors. If you are over or under paying your client laborers, you are doing them great injustices. Since normal times and productivity ratings are tied to the bidding procedure, you may also be having serious problems in the contract procurement area. This may be the source of difficulties if you suspect that your bids are often high or low.

Every payroll period you should check the total payroll for the period with the estimate of normal direct labor for the contract. If you can hit within 10% and explain by deliberate overloading or identifiable understaffing the variance outside of the 10%, you are probably on target. Any more than 10% over or under your estimate of normal on a regular basis or anything you cannot explain easily should trigger an investigation for estimation difficulties in calculating normal times or productivity.

Use of solid normal time estimations will also be of help in rebutting charges of unfair competition. Some profit businesses become upset with new competition from the not-for-profit contractor, particularly if the not-for-profit contractor begins to secure highly desirable contracts. The profit contractor may charge that the not-for-profit organization is undercutting his operation by paying clients sub-minimum wages. As we have just seen, this charge is groundless if the not-for-profit contractor is using estimations of the time necessary to complete contracts and of client productivity that are soundly formulated on community based normal times.

THE CONTRACT TYPES

We will assume your training operation is in full swing and you have some clients who need long-term employment. We will also assume that your facility has determined by marketing analysis that the development of contracting services is desirable and feasible. Starting capital has been sought, found, and committed for the purchase of equipment and supplies and the hiring of worker supervision. Where do you start?

There are several different types of contracts:

(1) One shot contracts.
(2) Low frequency few hours contracts.
(3) Low frequency many hours contracts.
(4) Medium frequency few hours contracts.
(5) Medium frequency many hours contracts.
(6) High frequency few hours contracts.
(7) High frequency many hours contracts.

The objective of obtaining and maintaining high frequency many hours contracts should be sought. High frequency many hours contracts are desirable because they will provide the greatest return on the dollar with the least amount of management. More money can be gained in the one shot contract market, but that market will cause much scheduling uncertainty and lots of headaches. The one shot market will not give clients a realistic look at what the majority of the cleaners, janitors, porters, and housekeepers have as a daily routine. It is, therefore, not normalizing. Work toward those high frequency many hours contracts by developing a reputation for quality services at reasonable prices. Remember, reputation relies on quality and the exhibition of quality requires performance of contracts. High frequency many hours contracts are the contracts awarded to the contractors with reputations for quality work.

The strategy that is employed to obtain high frequency many hours contracts will depend upon the number of clients in your facility and the marketing strategy you wish to embrace. You may not be ready for a type 7 contract with only 2 clients ready to work on the services contracting crew. Be cautious that you are able to satisfactorily perform a type 7 contract as loss of a type 7 contract would be a major setback and failure may make it difficult to obtain other contracts.

Break into the contracting field by soliciting a mix of medium and low frequency contracts. If you need to provide employment for your clients quickly and are willing to accept the resulting headaches, include one shot contracts in the mix. As reputation for quality grows, replace one shot and low frequency few hour contracts with the more desirable higher frequency longer hour types, as the need of clients and ability to provide service indicates. Be prudent in the weeding process:

(A) Consider the legal contract, as the terms of the contracts are legally binding. Make sure of not violating the contract if dropping service to some customers to obtain more desirable contracts.

(B) Satisfied customers are vehicles for reputation. Proceed with care so as not to turn customers that help your reputation into angry opponents.

(1) One Shot Contracts: Often large amounts of money are involved in one-shot contracts because of the large amount of set-up and anticipation costs involved. It is expensive to be ready with the manpower and machinery to jump into a one-time job. These may be very lengthy, lasting several days or weeks, but not over a month, or they may be short in duration, lasting only a few hours.

Advantages:

More money is involved. Higher profit can be included.
Clients can at least engage in work during the one short term if otherwise idle.
As the contracts aren't as desirable, there may be less competition.
With quality work, it is a quick way to build a constituency.

Disadvantages:

One shots pose scheduling problems.

(2) Low Frequency Few Hour Contracts: Low frequency means performance of the contract no more than once per week. These once per week contracts are usually only one or two hours per session. These contracts will most likely make up the bulk of your starting load. Because of the low frequency and few hour nature, they are more expensive to perform than a bigger contract. Usually equipment must be hauled to each session. Since there is a significant time lag between sessions, every task will need to be completed every session and each session the building will be highly soiled. Even though the performance of low frequency few hour contracts is more expensive than the larger contracts, these small business operations will not pay a premium for service.

The low frequency few hour businesses also tend to be shopping around for someone to do their cleaning cheaper. These businesses are critical of quality. However, these businesses can also build a reputation for quality.

Advantages:

- Since many businesses want to contract for few hour service and they often shop around, the chances of obtaining some of the contracts are good.
- Enough of these small contracts can fill out a shift.
- Quality work can develop into long time boosters from some of these small businesses.

Disadvantages:

- Operation costs are high and cannot be passed on to the business in high bid estimates.
- Soil concentration will be high.
- Because of the time lag between service dates, clients may need memory aids to provide service continuity.

(3) Low Frequency Many Hours Contracts: Many of the low frequency many hours contracts are of the "lick and promise" variety. The low frequency many hours name tells a lot. The businesses are medium sized companies who should be contracting for medium frequency few hours. Instead, they attempt to get by with a once a week cleaning that takes a long time to complete. The service usually takes two to four hours to complete. Because the business will probably get pretty dirty during the week, often the businesses are not too concerned with detail when cleaning day comes. "Take care of the bad stuff," they may tell you. Many service contractors like this

type of contract because they can do mediocre work. Attempts at quality work will not be compensated, so if you do quality work you will probably suffer quite a loss. Even the long-term use of the contract as a reputation booster will probably not even out the score.

Advantages:

Good contracts for mediocre contractors.

Disadvantages:

Money will be lost if you do quality work.

(4) Medium Frequency Few Hours Contracts: Medium frequency contracts usually receive service two or three days per week. This category also includes four day per week contracts, but this frequency does not often occur because it causes disjointed schedules. The medium frequency few hour businesses are medium sized companies often concerned about their image. They demand quality, are willing to pay for quality, and will shop for other contractors if their quality demands are not met. They are also extremely good references for those contractors that meet their needs. This is the important image market. This is also the point where expenses for quality work will be met. With these points in their favor, the medium frequency contracts (both few hours and many hours) are sought after.

Advantages:

Good image builders.
Expenses for quality work can be charged to the businesses.
Schedules are easier to make.

Disadvantages:

- Even with medium frequency, few hours mean that more contracts are needed to fill a shift.
- Quality will be demanded and if not delivered your cleaning service will be replaced.

(5) Medium Frequency Many Hours Contracts: Like the medium frequency few hour contracts, the medium frequency many hour contracts are out to build their own image. A little larger, the many hour contracts will provide a better scheduling base for your contract mix than the few hour businesses. With the medium frequency many hour contracts, you may begin to store larger equipment and supplies on the contracting premises. Storing on-site reduces the possibility of equipment damage from constant handling, but still may lead to higher overhead costs. By leaving a buffer or vacuum cleaner at these sites, another may be needed to service smaller contracts. Weigh the frequency of use with damage history and the availability of funds for extra equipment in the decision to store equipment on site. If supplies would be held in a central store area anyway, it will probably be an advantage to store supplies on site. Be aware that the personnel at the business may use some of the supplies (like soap or paper products or glass cleaner) in between service dates. If the use is not too tremendous supplies usage could be considered as good public relations.

Advantages:

- Storing some equipment and supplies may save you money.
- These are image building contracts for quality services.
- Scheduling and rounding out of shifts will be simplified.

Disadvantages:

By leaving equipment and supplies, loss risks are incurred.
Because the dollars are significant, quality must be maintained to avoid the loss of the contract.

(6) High Frequency Few Hours Contracts: Generally smaller businesses, high frequency few hours contracts are for high volume/high soil or businesses that deal with health department regulations. High frequency means five to seven days per week, with jobs in the few hour class lasting one to two hours. Restaurants are good examples; doctors offices, smaller retail stores, and bars are also of the high frequency few hour types of businesses. All these businesses need to be clean to operate and in the case of restaurants and health organizations, the cleanliness is of great importance. Therefore, some of the type six contracts demand great quality; others may ask for "lick and promise." These contracts keep clients working steadily. Storing equipment and supplies at the site may be an advantage.

Advantages:

Workers are kept at steady employment and round out the contract mix.
There is a large market potential for high frequency many hours contracts because many retailers are in this market segment.
It may be wise to store equipment and supplies on site.

Disadvantages:

Many of these businesses consider it cost effective to hire their own cleaners or use other employees to do the cleaning. This means that there is a great deal of selling of your service to convince these businesses that they will receive cost savings by hiring your cleaners. (This also means that this is one of the better placement sectors.)

(7) High Frequency Many Hours Contracts: These are the cream of the crop. High frequency many hours contracts are highly desirable for any contractor and, therefore, there is a lot of competition. Reputation is a large factor influencing a successful contract award. These are generally long-term contracts. Because the cleaning may take an entire shift and there are many days per week involved, store equipment and supplies at the site. Many areas of saving can help you keep the quote price competitive:

(A) Reduction of transportation costs.

(B) Lower material handling costs.

(C) Reduced inventory costs.

As high frequency many hours businesses are large operations, the businesses are interested in low turnover of contractors. By maintaining quality standards and keeping costs in line, the contract may remain in force for a long time. These contracts are the best references for other high frequency many hour jobs and the smaller contracts as well. Quality work will be required but will be rewarded. These contracts make for excellent long-term training sites. They allow clients the freedom to make mistakes and put things back in order. The high frequency many hour contract will be the backbone of your operation.

There is one major drawback. The effects will be dramatic with the loss of a high frequency many hour contract. It will be difficult to reassign the workers to other jobs and the equipment and supply inventories will not be quickly absorbed. In addition, the loss of a high frequency many hour contract will have bad effects on your reputation and it will be difficult to obtain another high frequency many hour job. Your services contracting image with the other types of jobs will also be tarnished.

Advantages:

Most stable of the contract types.
Possibilities for good profits exist.
Best training ground for clients.
Supply and equipment can be inventoried on site.
Best image maker.

Disadvantages:

Difficult market into which to break.
Failure in the market is disasterous.
Equipment and supply capital will be large.

LEARNING ABOUT BID OPPORTUNITIES

Learning about contract openings is the first major task confronting the new contractor. Look at the market research that should have preceded the decision to enter the contracting market. Are all seven types of contracts available in your area? If not, what types are? Who are the businesses and are they looking for new contractors? Do you have competing contractors? What are their images? What is your plan for building an image?

There are several methods of discovering contract types and other information about businesses. Earlier we talked about the value of listening to your supplier. Suppliers usually know all the contractors in the area and usually are well versed in the businesses that purchase supplies for their own consumption or who contract out their cleaning. They will also have good knowledge of size of operations. Be aware that the supplier may already support (sympathetically or materially) other contractors, so their information may be biased.

Another source is the business directories put out by the chamber of commerce. Many of these will give size estimates from which you can assume the type of possible contract. These directories may not be free, but the charge is nominal. Retailers may also have an association in your area. Often they band together to aid each other in keeping up the quality of their operations. They will be interested in giving information to organizations that will have a positive impact on the overall quality of business that they offer. Don't overlook the use of the yellow pages in the phone book. Most of the organizations you will be dealing with will be listed there.

After gaining a strong idea where the contracts will be and the types of contracts that will likely be available, assess the strength of your competition. Can you discover what contracts they hold? Which operations are the largest? Any clues to their reputations? People will talk about the really bad contractors and the really good ones. Assess why they are considered bad or good to avoid their mistakes and emulate their successes. Talk to the better business bureau, chamber of commerce, other training operations, placement people who deal with cleaners, businesses who have dealt with your competitors in the past and who presently have contracts with them. If the business is happy with the contractor, they will probably say they are happy and little more. If the competitor's business contracts are not happy and see you as a possible remedy to their situation, they will tell you much. Keep this in mind as a contractor as well. Putting together a profile of competition will:

(A) Help locate contracts that may be up for grabs.

(B) Help determine those contractors in competition for the large contracts.

(C) Point out operating procedures that may give an edge in bidding.

SELLING YOUR SERVICES

After assessing the competition and the possible businesses to contact for contracts, match the strengths of your organization to the needs of the prospective businesses. Talking to a few businesses about their cleaning needs will help to determine your business needs in the area of cleaning. Most will say that they want contractors that do quality work for competitive rates and that employ honest workers that show up every session. (Worker dishonesty and worker turnover are often cited sore points with employers of cleaning personnel.) Assess your abilities critically. Keep in mind that the contract is a set of promises where you promise to perform tasks in certain ways and the business promises to reward you for performing the tasks satisfactorily. Never contract to do a job that you may not be able to perform. You will tarnish your reputation if you fail and be held liable for damages.

A list of abilities to compare with business needs will help develop advertising strategies. A list of abilities may look like this:

Supervisor with five years of experience.
Six quality conscious workers.
New, heavy-duty equipment.
Experienced training operation.
Access to the latest knowledge in new technologies.
Stable workers with little or no turnover expected.
Good references. (First time contractors use training references.)

High interest in quality work.
More supervision than would be offered by other contractors.
Good management interaction with day-to-day operation.
Willing to troubleshoot at all times.
Will guarantee work. Willing to reduce charge for work that the business does not like.

A list of needs from the business' point of view may look like this:

Work must be high quality.
The price must be competitive.
The program must guarantee every session appearance.
The business retains quality opinions.
The business will need compensation for pooling completed jobs.
References must be given.
No theft can occur.
Provide proof of ability to perform tasks.

Use points from these lists to prepare the copy to present in brochures. Consider getting testimonial information from the employers you have served, placement personnel or other people familiar with your programs, and your board. Their testimony will be valuable advertising of sound operational status. Copy should stress solutions that you can offer to potential service contracting concerns/problems.

The objective in advertising will be to put your name before potential customers. Don't waste time and lots of money with a door-to-door sales pitch. Your service needs to be known through advertising and word of mouth, so that when a business decides to recontract for cleaning, they will contact you.

Aim some advertising at getting businesses to think that they should look around for a new contractor. Look for new construction and new businesses moving into your area. Approaching new businesses will be the principle door-to-door selling for your operation.

Put your advertising and promotion efforts into high visability locations and locations where other businesses will gather information such as business phone directories, business association newsletters, and direct mail advertising. A solid display ad in the yellow pages is essential. Make presentations to business groups using your facility's public relations people. In all promotional efforts:

(A) Stress reliability and professionalism.

(B) Build an image of quality.

(C) De-emphasize the disabled nature of your workers.

As suppliers hear the dissatisfied comments of some of their customers that may benefit from your service, make sure your supplier knows your strengths and respects your operation. The supplier may comment to the business about your service or leak to you the information that a business is looking for a new contractor.

Set up an ongoing brochure mailing aimed at particularly desirable contracts and at contracts identified as becoming possibilities for bid. Send these businesses information on your service several times per year. Send other potential businesses information about your service once a year to keep the contracting service's name known. Try to determine the contracting time of each business (many businesses contract to coincide with their fiscal year) and mail two months prior to the end of the present contract.

DETERMINING THE QUOTATION PRICE

In seeking employment, placement specialists stress that getting the interview is only half of the hurdle. To win the interview is to win the game. In contract procurement a similar statement is true. When a business calls and expresses interest in having you bid their job, they are saying, "O.K., we would like better service; show us you are competitive." You must win the job with your quotation.

Contracts live on the quotation given. Services are rewarded or rebuffed based on the quotation given. The quotation will determine whether you make a profit or go in the red. Quotations will be the basis for and spring from estimations of worker performance and productivity. With a normal time oriented training program, quotations will have a good footing. If not normal time based, the service operation will be difficult to control financially. Good budgeting and accounting procedures will help in gathering the information needed to do an accurate quote on the costs involved in the quote. Quotes will be more accurate after some experience with the actual costs has been gained. More accurate quotes are often obtained when rebidding occurs at the end of the first contract term.

Consider the following items in the quote:

(A) Direct labor costs
    a. Fringe benefits
    b. Setup and rework

- (B) Indirect labor costs
    - a. Direct supervision
    - b. Other involved personnel
    - c. Fringe benefits
- (C) Materials costs
    - a. Direct materials
    - b. Indirect materials
    - c. Overhead (storage and handling)
- (C) Other costs
    - a. Program overhead expenses
    - b. Equipment depreciation
    - c. Transportation
- (E) Expected above costs revenue

Direct and indirect labor costs will compose the largest percentage of the quote figure. Some schemes have been devised to relate labor cost to the square footage. The intent is to produce a "labor cost per square foot" statistic to use in later quotes.

Using such a system: If $200 labor is incurred on a contract that has 750 square feet cleaned each session, the amount of $.267 per square foot is produced by dividing the direct labor amount by the total square footages:

\$ Direct labor divided by Square footage	$\frac{\$200}{750} = \$.267$ per sq. ft.

When the contractor receives a bid request for a building that has 1,250 square feet, he can use the statistic by multiplying 1,250 by .267. The resulting quotation for labor costs is $333.75.

Square footage	1250
X Amount per sq. ft.	X \$.267
Estimated direct labor cost	\$333.75

This method can be useful as a general check on how an individual contract relates to the other contracts you may be working. However, it is not sufficient to produce competitive quotations. Too many variables are left out. Does the 1,250 square foot building have the same relationship of carpet to tile floors as the buildings used to determine the statistic? Do the contracts call for strip and rewaxing of the tile at the same frequency? And on and on. All variables and frequencies must be taken into account every time you do a quote.

Determining direct labor costs

Quotations should never be developed from a phone description. Always examine the site. A total description of all the building features including square footage of all operations or number of items, if square footage is impractical, should always be made. In the breakdown of each area include:

(A) Floor surface
  a. Tile (Square footage, obstructions, and frequency of operations)
    1. Dust mop or sweep
    2. Damp or wet mop
    3. Machine scrubbing
    4. Buffing
    5. Recoating
    6. Stripping and recoating
  b. Carpet (Square footage, obstructions, and frequency of operations)
    1. Vacuum
    2. Spotting
    3. Carpet cleaning (what method?)
    4. Gum removal
  c. Wooden floor (Square footage, obstructions, and frequency of operations)
    1. Dust mop or sweep
    2. Treatment

(B) Washrooms (Fixtures count and frequency of operation)
    a. Sinks
    b. Mirrors
    c. Stools and urinals
    d. Other fixtures
    e. Partitions
    f. Walls
    g. Floors
        1. Sweep and mop
        2. Seal coating
    h. Restocking soap and paper products
    i. Sanitizing

(C) Offices (Number of items, size of items, and frequency of operation)
    a. Dusting
    b. Trash removal
    c. Ash tray washing
    d. Desks, chairs, bookcases, files, tables, picture frames, lights
    3. Walls

(D) Glass (Number of windows, size, and frequency of operation)

(E) Other considerations
    a. Trash removal from rooms and/or buildings
    b. Special needs like snow removal or grounds care
    c. Venetian blinds and drapes
    d. Special kitchen cleaning (Grease removal)
    e. Other than normal soil (Fire clean-up, tar, extended noncleaning period)

Site descriptions completed on standard forms can be easily assessed. Figure 6 illustrates a standard site description form. Each column holds square footage figures or item counts for each area to be cleaned.

The rows indicate the process or operation to be performed. Difficulty in the cleaning task, such as an excessively dirty floor, or the number of obstructions encountered, such as 7 desks or 5 chairs, are noted in the column far right. Under special considerations, the site examiner would note such items as the frequency or stripping and waxing or the use of the building owner's cleaning fluids. (See Figure #6.)

After the site description is complete, convert the square footage figures for each task and the numbers of objects for each task into normal times using one of several possible methods. Your facility might undertake the development of normal times through time study. Time study methods are time consuming and generating reasonably accurate figures incurs large labor costs, so most facilities will turn to engineered performance standards developed by others. Most engineered performance standards report statistics in 100 square feet areas and hundredths of an hour, taking into account the number of obstructions and level of difficulty. Multi-step processes are reported on a task analysis basis.

Our example will use the floor surface-tile figures found in the Janitorial Formulas in Appendix A. We will assume that the contracting service was approached by the owner of a small grocer. The grocer had been using a relative to clean the store each morning. However, the relative is leaving for an out-of-state university next month. The grocer wants to know the service price to do the cleaning his relative had been completing. Inform the grocer that an examination of the store must be completed and arrive at the store with a measuring tape and site description form.

The grocer explains that the store is open Monday through Saturday and needs to be cleaned every business day. Further, all dusting will be done by the grocer; no other cleaning tasks need to be performed; the grocer will purchase all the cleaning supplies and store them at the grocery; and the grocer already owns the equipment needed to perform the tasks and will maintain the equipment and release your operation from all but negligent damage to the equipment. The grocer also agrees to a one year contract term after he gives approval of the quotation price. The store is closed on nine holidays. (See figure #6)

After gathering all the square footage figures, you return to your office with a promise to mail the quotation to the grocer in two days. The grocer wants the quotation stated in a per session form.

At your office you note:

(A) Sweeping (no obstructions) = 700 square feet per session.

(B) Wet mopping (no obstructions) = 534 square feet per session. (Here you must take into account the once per week figure of 200 sq. ft. for the storeroom. Because there are six sessions, you can charge to the per day figure 34 square feet.)

Total square footage Divided by Number of sessions $\frac{200}{6} = 34$ sq. ft. per session

Square footage per day area one +
Square footage per day area two =

Total square footage per day

500 + 34 = 534

SITE DESCRIPTION

OPERATION

	SQUARE FOOTAGE OF EACH AREA							DIFFICULTY	
Area description	ONE	TWO	THREE	FOUR	FIVE	SIX			
DUST MOP or SWEEP	500	200						No obstructions	
DAMP or WET MOP	500			200				No obstructions	
MACHINE SCRUBBING									
BUFFING			500					No obstructions	
RECOATING									
STRIPPING and WAX					500	200		No obstructions	
VACUUM									
CARPET SPOTTING									
CARPET CLEANING									
GUM REMOVAL									
WOODEN FLOOR									
SINKS									
MIRRORS									
STOOLS and URINALS									
OTHER FIXTURES									
PARTITIONS									
WALLS									
STOCKING FACILITIES									
SANITIZING									
DUSTING									
TRASH REMOVAL									
WINDOWS									

SPECIAL CONSIDERATIONS Small Grocer

AREA ONE = Main display area, each session
AREA TWO = Storeroom, each session
AREA THREE = Main display area, once per week
AREA FOUR = Storeroom, once per week
AREA FIVE = Main display area, twice per year
AREA SIX = Storeroom, twice per year

Cleaning Monday through Saturday
All dusting performed by store personnel
Grocer supplies and stores cleaning equiptment and materials
and will release service from all but negligent damage
One year contract after quotation approval
Closed on nine holidays

Figure 6: Site Description of Small Grocer Example

(C) Buffing (no obstructions) = 84 square feet per session. (Again the weekly figure is changed to a per session figure.)

Total square footage
Divided by
Number of sessions

$\frac{500}{6} = 84$ sq. ft. per session

(D) Strip and rewax twice per year = 5 square feet per session (rounded from 4.62). (Each time you strip and rewax 700 square feet. This is 1,400 square feet per year. Six sessions per week times 52 weeks equals 312 sessions. The store will be closed for holidays on nine of those sessions, so you will perform service on 303 occasions. Divide the 1,400 square feet per year by 303 sessions to change the stripping and rewaxing to a per session rate.)

Number of sessions per year =
(Number of sessions per week x 52 weeks)
Minus planned sessions off for holidays.

$6 \times 52 = 312$
$312 - 9 = 303$ sessions

Square footage total for year
Divided by
Number of sessions per year

$\frac{1400}{303} = 4.62$ sq. ft. per session

Task footages must be converted into figures for performance time. Using engineered performance standards tables or consulting time studies, look up each task and assign the task a normal time.

Consulting Janitorial Formulas developed by NAVDOCKS (1965) (See Appendix A) yields the following information:

Sweeping unobstructed = .0123 per hr. per 100 sq. ft.

Wet mop light soil unobstructed = .0467 per hr. per 100 sq. ft.

Buffing 16" machine unobstructed = .0450 per hr. per 100 sq. ft.

Strip and rewax unobstructed = .1667 per hr. per 100 sq. ft.

These figures tell how long to expect a normal worker to spend completing each job. For instance, for a small porch 10 feet by 10 feet in size, it will require .0123 hours sweeping each time it is cleaned. Translating this into minutes by multiplying .0123 by 60 minutes, shows that the job will take just under one minute to complete.

Time in hours x	.0123
Minutes in an hour	X 60
Minutes to complete job	.738

The performance information will allow the development of a direct labor quotation. In our grocery store example workers will sweep 700 square feet each session. Because the Janitorial Formulas are expressed in time per 100 square feet of cleaning area, divide the area needed to be swept at the grocery by 100. Dividing 700 by 100 results in a factor of seven. The Janitorial Formulas specifies that sweeping takes .0123 hours for each 100 square feet swept. Therefore, multiply the time of .0123 with the amount of area of 7 to determine that sweeping the grocery will take .0861 hours. This process, outlined below, is continued for each of the cleaning areas within the grocery.

Square footage to be cleaned
Divided by
Standard formula area of 100
Equals area factor.

Area factor
Multiplied by
Normal time per 100 square feet
Equals cleaning task normal time.

Sweeping -

700 sq. ft. divided by 100 = 7
7 x .0123 = .0861

Wet mopping -

534 sq. ft. divided by 100 = .84
5.34 x .0467 = .2494

Buffing -

84 sq. ft. divided by 100 = .84
.84 x .0450 = .0378

Stripping and rewaxing -

5 sq. ft. divided by 100 = .05
.05 x .1667 = .0083

Now that all the tasks have been turned into percentages of hours, add them together for a grand total:

.0861 + .2494 + .0378 + .0083 = .3816

Since this figure is based on hours, some contractors might wish to put the figure into minutes. This is easily done by multiplying the total of .3816 by 60 which equals 22.9 minutes.

Normal time per hour
Multiplied by 60 minutes
Equals Normal time in minutes.

.3817 hours x 60 minutes = 22.9 minutes

This 22.9 minute figure does not indicate that 22.9 minutes is the time that will be spent cleaning the grocery. Time is included for buffing, stripping and rewaxing, and the shorter number of cleaning days in the storeroom.

The actual time you spend each session will depend upon the tasks you are performing that day. However, the 22.9 minute figure is the time to use in determining a quotation price. It is readily apparent that this contract is a high frequency low hours contract. It would need to be matched with several other contracts to be attractive. It might be attractive if the grocer also operated the Westown Giant Mart or could give a good reference to the person that did own the Westown Giant Mart. The low hours figure indicates high overhead costs because the scheduling time involved with keeping a client working would be excessive. Transportation may be another difficulty.

The direct labor hours will need to be assigned a dollar value. The Wage and Hour Division of the Department of Labor will be interested in how this assignment of dollar value is made. In order to comply with the Fair Labor Practices Act, the valuation for labor performed must be equivalent to the prevailing average wage for similar tasks performed in your area. This is not the entry level wage, but the wage that any community worker would expect to receive if the community worker performed the same job. The Bureau of Labor Statistics may have information on the prevailing wages for porter or cleaner tasks in your area or an area that is substantially similar to your area. The local office of your state Job Service will possibly have published statistics for similar jobs in your statistical area. They would certainly be knowledgeable in your local labor market and may be able to quote you a prevailing rate of pay. As a sheltered work administrator, you must prove that the manner in which you pay clients is fair and as a contractor, if you are challenged by business, you need to prove that your quotation practices are fair. Keep a file of wage information received and update it regularly, at least once a year and more often if large changes in the wages in your community are suspected.

Continuing with our corner grocer as an example, let us assume the grocer is located in the midwest around Kansas City in the year 1980. Bureau of Labor Statistics has shown that around that time, in that location, contract cleaners were earning, on the average for trained workers, about $3.60 per hour. Referring back to the total time figure we calculated of .3816 hours, we want to know the dollar value of that time for the tasks performed. Therefore, the direct labor figure would be entered as $3.60 x .3816 = $1.37. This is not what to pay each worker, but what you would be expected to pay to complete the job. It is the direct performance labor cost for your quotation.

Wage per hour
    Multiplied by
Number of normal hours to be worked
Equals the quotation price for direct labor.

In order to complete the quotation, more information is needed. Refer to the Bidding Sheet (Figure #7) or the items listed on pages 103-104. The contract bid preparation form allows the entering of cost figures

CONTRACT BIDDING WORKSHEET

Prospective Contract:
GROCER
XXX Street

COST DESCRIPTION	VITAL FIGURES					TOTALS
MATERIALS:	Expected volume:		Cost per unit:			
NONE						
(All materials provided by Grocer)						
						0
DIRECT LABOR:	Square footage	Normal time	Sub total	Prevailing Wage	Sub total	
Sweeping	700	.0123	.0861			
Wet mopping	534	.0467	.2494			
Buffing	84	.0450	.3078			
Strip and rewax	5	.1667	.0083			
Sub total			.3816	$3.60	$1.37	
	Direct labor	% or statistic				
Setup and rework	.3816	.10			.14	
50 minute hour adjust.	.3816	.8333			.27	
Benefits	.3816	.073			.03	
Sub totals:					$2.05	$ 2.05
INDIRECT LABOR:	Wages	Benefits	% of time contracts	Impact %		
Foreman	$ 4.50	54.2%	100%	1.00		6.95
Program Supervisor	6.00	54.2%	40%	.0239		.09
Vocational Director	10.00	54.2%	5%	.0239		.02
OVERHEAD EXPENSES:	Total expensed	Contract % of labor load	Expected # of sessions			
Overhead as reported by the accounting office.	$22,000.00	.0239	303			1.74
OVER COST REVENUE:	Total revenue expected	Total expected labor hours	Direct labor this job			
Cost-plus	$20,000.00	6,215.22	.3816			1.23
QUOTATION TOTAL:						$ 8.52

Figure 7: A Sample Quotation Worksheet

for each item of the quotation. Under the description column, the rows are marked for the items considered. For instance, in the grocer's quotation, we are considering sweeping, wet mopping, buffing, and stripping and rewaxing under the direct labor catagory. We would therefore mark each row above the "setup and rework" line with one of the direct labor tasks. In the "Vital Figures" column corresponding to each task we would insert the dollar amount indicated by the square footage and prevailing wage rate figures. If there are many tasks, we may simply enter the total direct labor figure on one line.

The figures used for direct labor consider only the actual cleaning operations. They do not consider the time incurred in job setup and the possibility that some jobs may need extra work. Add at least 10% to the performed time for setup and rework. The performance time also does not take into account breaks and loiter time. Most businesses figure direct labor on the basis of 50 minute hours. To adjust direct labor time, divide the time by .8333, subtract the time, and report the result as a 50 minute hour adjustment.

Fringe benefits may be gathered from the bookkeeping or accounting officies. If clients receive vacation, sick time, holiday pay, meals, uniforms, etc., calculations must be made of the benefits value stated in a per hour figure. In addition, the cost of federal and state unemployment insurance, FICA, workmen's compensation, and any health benefits offered must be determined. Check with the accountant on these items.

The figures for fringe benefits will need to be reviewed periodically as costs will fluctuate. Some costs will be determined on percentage of payroll and will be easy to include in the quotation.

A direct labor worksheet might look like this: (Also refer to figure #7)

Direct Labor

Expected performance labor...$3.60 per hr. x .3816 hours = $1.37

Setup and rework... .10 x .3816 hours x $3.60 per hour = .14

50 minute hour adjustment... [(.3816 hours divided by .8333)—.3816] x $3.60 per hour = .27

Client benefits...(We will assume clients get 5 vacation days and work an average of 30 hours per week.)...30 hrs. x 52 weeks minus 5 vacation days and 9 holidays = 1476 hours...5 days at $3.60 = $108.00

$108.00 divided by 1476 hours = .073 per hour

.073 per hour x .3816 hours = .03

Mandated benefits...(These are based on the facility's history of unemployment claims and compensation use.)

Unemployment insurance...6%	=	.08
Workmen's compensation...5%	=	.07
FICA (social security)...6.2%	=	.09
TOTAL DIRECT LABOR		$2.05

Note in this sample direct labor worksheet using the corner grocer, we have entered the previously determined expected performance labor of $1.37. The fifty minute hour adjustment is determined by dividing the total time by the percentage of 50 minutes with 60 minutes, subtracting the 60 minute figure and multiplying the total by the prevailing wage. Client benefits must be determined by discovering their value in relationship to the amount of time the client works. This allows a "per hour" figure to be developed. First, determine the average amount of time that a person works per year making sure to subtract the vacation, holidays, and sick periods that may be used. Then determine the total dollar value of the benefit. In this case five vacation days have a value of $108. Finally, the value of the benefit must be distributed throughout the number of hours the client will work, by dividing the value in dollars by the total hours in the year. This final figure is then multiplied by the number of hours of direct labor to obtain the quotation assessment. Mandated benefits like unempolyment insurance and FICA must be developed by using the percentages set for your agency and multiplying the percentages with the expected performance labor figures.

This may appear to be a lot of work for a tiny sum; however, this is a six session per week contract, 52 weeks per year (minus 9 holidays) or a direct labor figure of $621.15 for the contract life.

Sessions per week x 52 weeks
Minus planned days off = Total days worked

Total days worked x direct labor total per day =
Direct labor total per year.

A mistake can be costly even in a small contract. In addition, this is also the procedure used with big contracts where mistakes can be magnified to enormous proportions. Finally, this still isn't the quote we will submit to the grocer. Indirect labor costs, other costs, and expected above cost revenues must still be considered. (The materials costs were eliminated by the grocer.)

Determining indirect labor costs

Indirect labor costs are those costs incurred by people working with clients on the job. Some are called supervisors, others instructors, and some foremen. Indirect labor costs are also incurred in the administration of the program. These could be coordinators, supervisors, managers, directors, and so on. Finally, indirect labor costs are also incurred by ancillary personnel like social work services or other services related to the needs of clients in the contract operation. The direct client involved employee will have all or nearly all of the costs associated with their employment charged to the contracts. (Some budgeting schemes will allocate a portion of the production worker's time to training... such as putting the employee on 90% of the contract cleaning budget and 10% on the training program budget.) As in the direct labor figures, fringe benefits must be indicated in the calculations. For other than direct supervision, a portion of the employee's time should be allocated to the operation of the contract business. If a coordinator only works on contracts and controlling contract operations, consider the coordinator's labor in your figures at 100%. A manager that oversees the contract operation and also the training program will need the portion of the contracting determined by the time absorbed by the contract portion of the job. Then there may be a vocational director that oversees the operation of many programs and has other responsibilities. The director's time on the contract's operation must be calculated, and so on until all employees that have a relationship to the contracting operation have been accounted.

We must be careful when determining the amount of indirect labor to assess each contract. Assume that this contract is one of five that will be completed by a shift of workers with one supervisor during the day. Some are large and some are small, but they all total to 16 hours in direct labor.

Time for contract A	1.0
plus time for contract B	0.5
plus time for contract C	2.0
plus time for contract D	4.0
plus time for contract E	8.5
TOTAL CONTRACT HOURS PER DAY	16.00

Remember that we are talking about total time for a job using one person. Normal times will add up to more than one person could accomplish in one day, but with the use of several workers jobs are completed within a working day.

If the contract operation will average 16 hours of direct labor per day with the proposed contract included, then the contract makes up .0239 of the labor day. This is determined by dividing the contract direct labor figure of .3816 by 16 hours.

Impact of contract on daily operations =
Direct labor hours for contract
Divided by
Total contract hours.

Therefore, the impact of each person's percentage on the individual contract can be determined by multiplying the portion of the labor day consumed by the contract with the percentage of time each indirect laborer spends with contracting.

An indirect labor work sheet may look like this:

Supervision

Foreman...100% on contract x $4.50 per hour	$4.50 hr.
Benefit package 37% of hourly wage	1.67 hr.
Unemployment ins. 6% of hourly wage	.27 hr.
Workmen's comp. 5% of hourly wage	.23 hr.
FICA 6.2% of hourly wage	.28 hr.
SUB TOTAL	$6.95 hr.

Other related personnel

Program Supervisor...40% on contracts during a working day x $6.00 per hour	$2.40 hr.
Benefit package 37% of hourly wage	.89 hr.
Unemployment ins. 6% of hourly wage	.14 hr.
Workmen's comp. 5% of hourly wage	.12 hr.
FICA 6.2% of hourly wage	.15 hr.
SUB TOTAL	$3.70 hr.

Vocational Director...5% on contracts during a working day x $10.00 per hour	$ .50 hr.
Benefit package 37% of hourly wage	.19 hr.
Unemployment ins. 6% of hourly wage	.03 hr.
Workman's comp. 5% of hourly wage	.03 hr.
FICA 6.2% of hourly wage	.03 hr.
SUB TOTAL	$ .78 hr.

Actual contract impact of other related personnel

Program Supervisor	$3.70 hr.
Vocational Director	.78 hr.
TOTAL	$4.48 hr.

.0239 impact figure x $4.48 = $ .11 per hr.

TOTAL INDIRECT LABOR WAGES PER HOUR

Foreman	$6.95 hr.
Other related personnel	.11 hr.
TOTAL	$7.06 hr.

Now that the total hourly rate for indirect personnel is known, a figure for the grocer example quotation can be determined. Just as in the figures for direct labor, consideration must be given to setup and rework, as well as the 50 minute hour adjustment.

Indirect Labor

Expected related labor... $7.06 per hour x .3816 hours	$2.69 hr.
Setup and rework... .10 x .3816 hrs. x $7.06 per hr.	.27 hr.
50 minute hour adjustment... [(.3816 hrs. divided by .8333 adjustment figure) minus .3816 hrs.] x $7.06 per hour	.54 hr.
TOTAL INDIRECT LABOR	$3.50 hr.

Determining other costs

Now we need to look at the other costs that may be incurred. Often called overhead expenses, these costs are such things as travel expenses, office supplies, office space and utilities, memberships in trade organizations, subscriptions, etc. We will again find the figure generated for overall contracts impact helpful. Total all the expenses during the contract term projected for a year. These expenses are the total for all contracts. We will use the example of a large operation with several shifts of workers working six hours a day, incurring office, storage, and vehicle expenses as well as keeping supplies in stock and providing staff training. For purposes of the example let it be assumed that $22,000.00 worth of overhead expenses is incurred. This proposed grocery contract will fit into the program at .0239 of the labor load. We determined this figure on the basis of the direct labor time in relationship to all contracting time per day. At that rate, we should allot $525.80 to this contract for overhead expenses for the year. Since we will only work 303 sessions at the grocery during the year, we will spread the overhead over those sessions by dividing $525.80 by 303. This amounts to $1.74 per session.

Let's see where our quotation is at this point.

Direct labor	$ 2.05 hr.
Indirect labor	3.50 hr.
Overhead expenses.	1.74 hr.
TOTAL	$ 7.29 hr.

Are we ready to give the grocer a quote? NO. Were we to quote at this point, the other contractors worried about the use of handicapped labor to undercut their quotations, may have a basis to worry. We need to add over-cost revenue. This is the cost we will use to expand our program, support training programs, and provide services such as placement. Added to our training budgets, the over-cost revenue can reduce the per diem rates, effectively returning all over-cost revenue to the taxpayers.

Before we decide how much over-cost revenue to add, we need to review what we have determined to this point. All the figures generated have related to cost. Some of the overhead costs are fixed; the labor and material costs are relative to the time and space considerations of the specific contract. In this manual we are looking at a cost-plus method of determining our quotation's over-cost revenue. Other methods could be applied, such as usage maximization or cost recovery. The cost-plus method is largely built on objectives. Many not-for-profit organizations have relied on usage maximization when applied to subcontract and service work, with cost recovery paramount in the prices set for the provision of rehabilitation services to third party payers. The theory was that any work that the clients could perform was remedial and therefore desirable. Figuring that the lower costs would attract more customers for goods and services and, therefore, more work for clients, the facilities looked at maximizing the number of contracts, even if a loss was incurred. The loss was passed on to third party payers in higher rehabilitation service fees. At best, using this strategy, a facility may attempt to reach cost recovery.

We have several motives for looking at surplus maximization as an objective with the cost-plus method used to determine quotations. Cost-plus pricing, operating in an otherwise static environment, generates the most generally grouped set of quotations. That is, if the contractors bidding on cleaning the local large office building have similar labor and overhead costs, the quotations will also be similar. Cost-plus pricing is usually seen by both the service provider and the customer as being the most fair for both parties.

Prices could also be set by the demand or competition method. The contracting market is stable in the area of demand since businesses will not be stimulated to enter into a service contract by a low quotation price unless that price is very low. That is, the businesses not now contracting for service would need a lot of enticement to begin contracting for service. We will utilize part of the demand method, however, quality service is seen as a premium by some businesses and may provide sufficient enticement for new businesses to enter the market. Most businesses consider quality service as part of the contract. The competition method dictates charging what everyone else is charging regardless of the surplus in order to stay competitive on bidding, though bidding lower than cost recovery to stay competitive will probably indicate other problems in the market or the bid preparation.

Again using the grocer as an example, let's examine the cost-plus surplus maximization process. The grocery contract is small enough on a daily basis for the grocer to have received service at a nominal sum. Since we have assumed the service operation is relatively large, and because of the overhead makeup of the rehabilitation facility, the price the grocer will have to pay for services is probably quite a bit more than the grocer was paying for the same services using a relative. Certainly the grocer was incurring overhead expenses carrying the relative as well, but the grocer will probably not consider this in examining the quotation. Even if the grocer did consider the grocery's overhead into the wage paid the relative, the costs would most likely be lower than quoted by a contracting service. This does not by any means indicate that the organization should not bid on the contract or that the organization should sacrifice cost recovery to obtain the contract. Other considerations should be made and will be discussed presently.

It would be wise to examine the organization in relationship to competition at this point, especially the competition that will likely bid on the contract and stand a good chance of bidding lower and obtaining the contract. Unless the organization enjoys a monopoly on the janitorial service contracting market, competitors will exist that are similar in size and structure to your organization, competitors will also exist that are larger in size and structure than your organization, and competitors will exist that are smaller in size and structure than your organization. Competitors that are the same size or larger will have the same problems with overhead in contracting to provide service at the grocery. Those that are smaller will not. The grocer is faced with a decision to either hire another person to fill the relative's role or hire a contractor to fill the role. If the smaller firm can do the job at a significantly lower cost than your organization, the smaller firm will get the job. However, the grocer may desire quality services with other options.

Other options should be considered to give the quotation a chance against lower prices:

Still give the large quotation (with over-cost revenue figure attached):

- * And attempt to persuade the grocer that your service will provide better quality and less headaches than the smaller service.

Modify the quotation and take a loss:

- * If critical for the maintaining of client hours.
- * If hypothesizing that the grocer, after the first year, might see how good the service is and accept a cost-plus quotation the second year.

Or, approach the grocer with other alternatives such as the alternative:

- * Of operating the contract as an unsupervised modification of a project with industry where you supply only the person who is directly paid and supervised by the grocer. You, however, choose the person and retain movement rights. (In effect, attach the grocer to the training program.)
- * Of hiring a competitive ready client outright as the grocer's employee.
- * Of supplying the grocer with only part of the service, such as only strip and rewax. (The submission of a new quotation would be necessary.)
- * Of operating the supervision and overhead as an alternative one, with the grocer

taking over these responsibilities, but retaining the client on the contract payroll. (The submission of a new quotation would be necessary to reflect only the direct labor and bookkeeping costs. Or the contract could be set up on an hourly rate basis.)

In the case of the grocery service, the small service contractor is at a distinct advantage. Prices can be controlled only three ways in janitorial contracting. Control is effected through wages paid, overhead incurred, and over-cost revenue demanded. Each of the three when applied to small contracts favor small contractors.

PRICING VARIABLES

(A) Wages

Since the same amount of work needs to be completed by anyone doing the job, the direct labor costs can only be varied by wage level. The small contractor is very apt to hire relatives or unskilled workers at less than the prevailing rate of pay.

(B) Overhead incurred

Lower overhead costs are largely a function of the size of the organization providing the service, with the small contractor either failing to take the overhead into account or just having less overhead at the outset.

(C) Over-cost revenue demanded

Finally is the over-cost revenue figure. A small service contractor may be willing to make a small mark-up and hope to generate enough revenue by doing many contracts. Because the needed revenue for larger organizations is much greater, this strategy will be less likely to work.

Let's assume that the grocer is interested in quality work even at a premium and that the grocer also views the service contracting operation placing the bid as a quality service worthy of the premium quotation. You decide to submit the full-cost quotation determined previously with an over-cost revenue figure attached. The over-cost revenue will be used to help subsidize the per diem fees charged in the training portion of the operation, or do some other task that has a readily identifiable dollar amount attached. From the budget it is determined that the training program will spend $100,000.00 in the next year. Of that amount, it is hoped that the service operation will contribute $20,000.00 toward the training expenses. Therefore, a determination must be made as to the allocation division of the $20,000.00 in over-cost revenue to each contract. When starting a new service with no contract record, assumptions must be made as to the total number of contract hours that will likely be generated in the first year. This assumption will be based on the total number of man hours anticipated to be used. For example, four clients are ready to be assigned to the service contracts and it is anticipated that one client will be added every two months. It is also known that one client will be lost to competitive employment and attrition every four months. We will hypothesize that the average productivity (work pace and quality) of the clients is 73%. Each client will work six hours per day, five days per week. Four clients start the program, six are entered into the program during the year, three are placed in other situations. Therefore:

Month one: 4 times 73% times 6 hours times 5 days = 87.6 possible labor hours per week times the average of 4.3 weeks = 376.68 labor hours for the month.

Month two: 4 x 73% x 6 x 5 x 4.3 = 376.68
three: 5 x 73% x 6 x 5 x 4.3 = 470.85
four: 5 x 73% x 6 x 5 x 4.3 = 470.85
five: 5 x 73% x 6 x 5 x 4.3 = 470.85
six: 5 x 73% x 6 x 5 x 4.3 = 470.85
seven: 6 x 73% x 6 x 5 x 4.3 = 565.02
eight: 6 x 73% x 6 x 5 x 4.3 = 565.02
nine: 6 x 73% x 6 x 5 x 4.3 = 565.02
ten: 6 x 73% x 6 x 5 x 4.3 = 565.02
eleven: 7 x 73% x 6 x 5 x 4.3 = 659.19
twelve: 7 x 73% x 6 x 5 x 4.3 = 659.19
6,215.22

This is clearly a projection. What will actually occur may be somewhat different depending on factors such as the job market for cleaners in your area (causing faster or slower placements), the number and type of referrals (more or less than the average number of referrals or more difficult cases for rehabilitation), productivity levels varying widely between months, etc. In addition, six hours of contracting may not be obtained for each client each day. Estimate client hours using the best interpretation of the information gathered in the initial marketing phase of the contract start up.

In our example, hours have been estimated at 6,215.22 hours of direct labor (excluding set-up and rework) during the contract term in question. Because it was decided for this example that $20,000.00 in over-cost revenue from the contracts should be sought, divide the $20,000.00 by the number of hours (6,215.22) to determine the amount to allocate each contract on the basis of the amount of direct labor it consumes.

$$\frac{\text{Desired over-cost revenue}}{\text{Total expected direct Labor hours}} = \text{Over-cost revenue allocation per hour}$$

$$\frac{\$20,000.00}{6,215.22} = \$3.22$$

Referring back to the grocery direct labor figure of .3816 per hour, we use the $3.22 per hour figure and multiply the hours of .3816 to obtain our over-cost revenue figure of $1.23. This is approximately a 12% markup, somewhat low, but still desirable. If it is discovered that other contractors are adding a considerably different amount for surplus, take that into consideration. Remember, the real prize is to win the contract. If several contracts are lost and it is discovered that the costs were competitive, look at the over-cost revenue margin.

Now we have all the figures necessary to give a quotation figure to the grocer.

Materials.............	$ .00
Direct labor..........	2.05
Indirect labor........	3.50
Overhead expenses.....	1.74
Over-cost revenue.....	1.23
TOTAL QUOTATION.......	$8.52

THE LEGAL DOCUMENTS

A contract is a legally binding document. The quotation however, may have more maneuvering room. Note on the document that the price is a quotation only and that acceptance of the quotation binds the business only to an agreed upon price. A separate contract must also be signed that will include as a subpart the quotation. In most cases, both a quotation and a contract will be submitted together, but there may be situations where the contract negotiation will be a separate action. In large or high frequency, many hour contracts, the terms offered in the contract may be advantageous to have an open term contract with a closed term quotation. A new price could then be negotiated without the necessity of drafting and renegotiating a new contract.

Quotations and contracts should be delivered with a cover letter. The cover letter should not be a form letter and should be signed by the person with the ultimate authority over the execution of the contract. It should thank the person requesting the quotation for the opportunity to bid on the job, give a one sentence overview of the intended operation, state briefly past history that indicates ability to complete the job, and offer references. The cover letter conveys to the business that the contractor is reputable, open to scrutiny, and will be available if there are problems.

Quotations must:

- Give the exact location of the cleaning operation.
- State exactly the operations to be performed by the contractor
- State business contributions (such as providing wax) and conditions to performance.
- State exactly when the operations are to be performed.
- State the date by which the contract must be signed to avoid voiding the quotation.
- Allow space for the business to indicate quotation acceptance by signature and date.

Beyond these required items, the quotation may be used as a vehicle for providing the business with options. Using the grocer as an example:

(A) We may want to extend a quotation that indicates performance of more than simply cleaning the floor. Be careful not to antagonize the business; however, if the grocer has made it very clear that no other work would be entertained, don't offer to do more. We may offer a different price for also dusting the grocer's counter. This could be as a second larger price that includes the dusting or as an add-on price for dusting only.

(B) Another tactic for use when the quotation may be seen as exceptionally high, would be to offer different frequencies at lower prices for the same work. These different frequency quotations would have to be figures by the same methods as before. Separate options may make the higher quotation seem more attractive or avoid the loss of the contract by offering a frequency that the grocer could afford. This is also a good tactic to use in the reverse. With a once a week, low frequency offer to quote, indicate the small increase that would be entailed in a slightly higher frequency of two or three times per week.

All contracts can be juggled on the basis of:

(A) Frequency.

(B) Who provides the supplies.

(C) Who provides the equipment.

(D) When is the cleaning performed.

(E) What operation is performed.

Contract forms should be made to be used as a standard form with variable items included as type-in slots or attachments. Quotations are considered as attachments, though the price will most likely also be a type-in item within the body of the contract. HAVE YOUR CONTRACT FORM READ BY AN ATTORNEY. This doesn't mean that every contract will be read by a lawyer, but that the standard form should be approved as legal and enforceable.

Some businesses may also use standard contracts and may insist that you agree to sign their forms. Still have your own contract signed (carefully noting any differences) and always have an attorney advise on the provisions of the contract the business offers.

Contracts must:

Establish legal jurisdiction.
Identify all parties involved in the agreement.
Describe the activity to be engaged in. (WHEREAS)
Describe the obligations of each party. (BE IT RESOLVED)

List any provisions for the agreement.
Describe actions on alternation of the agreement or failure to execute obligations.
Specify the length and termination provisions of the contract.
Include signature agreement of all parties.
Enumerate attached riders and appendices as appropriate.

Specifically under the obligations portion of the contract address:

The services to be provided. (As a statement referring to quotation attachment.)
The price of the services. (As a statement referring to quotation attachment.)
The reduction of price provision for unperformed services. (Pro rate adjustment.)
The provision for invalid parts. (Stating that all others will remain in force.)
The responsibilities for supervision of workers.
The control of the hiring and firing of workers. (Who holds the control?)
The workers; who pays them and offers fringe benefits?
The party responsible for inappropriate actions or damages done by the workers. (Is the contractor or the business at fault?)
The liability for injuries occurring on the premises due to conditions such as slippery floors.
The time when the contract becomes effective.
The time when payment should occur and penalties for late payment.
The attachment of any special obligation.

All of these contract areas must be stated in clear terms. There is no room for vagueness. Even the best of friends or the most reliable of organizations need concrete contracts. There is reason to believe that friends need stronger and more comprehensive contracts than enemies. Nothing makes enemies quicker than a dispute over the interpretation of contract terms. Make sure that all parties know what the terms of the contract mean, from each parties' point of view. State obligations in clear, simple language.

Just as with the quotation, the terms of the contract are negotiable. The change of contract terms is generally not offered as an alternative when submitting the contract forms (unless with the quotation), but is negotiated either prior to submitting the contract for approval, or after rejection of a submitted contract. Sometimes concessions in contract terms will allow the submission and approval of a larger quotation figure. So, negotiating the contract terms can sometimes make an otherwise unacceptable quotation palatable.

KEEPING THE CONTRACT

Once awarded a contract, you need to maintain it. Confer with the contact person at the business you will be serving and agree upon a regular meeting time. This may be fifteen minutes every other month for low frequency few hour contracts, to once a week for 30 minutes for high frequency many hour contracts. Set the frequency to stem off problems. The meeting purpose is to compare notes on performance, assure that contractual obligations are being met on schedule, and to settle disagreements before they result in contract termination. For large and vital contracts, set agendas and evaluation forms may be desirable for completion during each of the regular meetings.

In addition, for large and vital contracts, be certain that daily problems can be addressed with dispatch. The contact person mentioned in your quotation cover letter must be able and willing to handle panic calls (in many instances angry calls) when the business perceives your service as inadequate. Don't take for granted everything is being cleaned on schedule and the quality is high because you do not get any complaints. Do your own checking, for if you spot a problem, you can be certain that the business involved has spotted it as well. Even if no complaint is made, it reflects on the quality of service if you do nothing. A simple inquiry into the desirability of correcting the situation (when not wishing to automatically correct the problem) may avoid confrontations later.

Foremen should be equipped with a checklist of contracted items along with criteria for acceptable quality. Contracts that have many items with frequencies of less than every session may benefit by the construction of a yearly flow chart. In addition, construct a standard spot check evaluation. Never take for granted that quality work is being performed because it is being reported as completed by the foremen. Spot checks can be performed with or without workers present, but corrections should be made on site with the workers present. Show them where the problems lie. If evaluations are done in the worker's presence, on a regular schedule, and with problems pointed out immediately and without condemnation, workers and foremen will begin to see the evaluations in less negative ways and may cooperate with the elimination of the problem areas more readily.

Foremen will be work balancers with clients as the primary workers. Foremen interacting with the client workers will need to act as:

(A) Line operation bosses providing:

  (1) Task assignment
  (2) Quality control
  (3) Troubleshooters

(B) Instructors providing:

  (1) Evaluation of skill knowledge
  (2) Quality of performance review

Time percentages on each of these tasks will vary greatly according to the abilities of the workers and the demands of the contract site and contract tasks. It is best to view the foremen as facilitators, interacting with assigned clients to achieve the goals of satisfying a contractual agreement by providing services to a business and giving clients a training experience that provides an introduction to actual work sites.

Foremen will need to be aided in developing routines. The routine will help the foreman complete the demands of the contracting day. Such a routine would outline the major tasks to be completed each day and the general order for the completion of the tasks. The following is an example:

FOREMAN ROUTINE PLANNER

1. After arriving at the job site, examine site for obvious areas of intense effort.

   Check the contract task list for their session's activities.

   Assign client workers to tasks, keeping in mind their work pace in relationship to projected contract completion time.

2. Control work pace and quality documentation. Note other problem areas on appropriate forms as they occur.

   Check work for quality as it progresses.

   Reassign workers as time needs dictate.

   Perform scheduled training activities.

   Resolve problems as they develop.

3. Check all completed work prior to leaving the contract site.

   Enter all required data on worker productivity and contract information.

   Note special requirements for the next session, including special tasks, replenishment of supplies, or the use of special equipment. Also, note that labor needs are being met or surplused.

It is important that the contracting and training program cleaning routines are identical. All clients in the production program will have completed the training program and, therefore, be familiar with the way that tasks are to be completed. If an other-than-standard procedure is to be used for cleaning at a contract site, make sure to add it to the training program as a possible cleaning method. If the workers are trained in one method, but use an unfamiliar method when they start at the contract production site, they will, first, be unable to perform and, second, forget the correct method. The correct method is always the method that workers are required to use in the competitive work world.

It is also important that the evaluation of the client's performance be done in exactly the same way as in the training program. Work pace and work quality will be determined according to the figures obtained by the quotation process and compared to the actual performance for each session. The averages obtained through this process will be used to report remediation progress and to provide a basis for fair pay.

OTHER CONCERNS

As in the training program, criteria should be established to aid the program staff in determining client entrance into the production part of the program; criteria will also show when clients are ready for discharge into competitive employment. Policies for dealing with inappropriate behavior should also be set and the client should sign a contract. It may be possible to word the initial contract agreement to include any admission into the production program as well, but if the contract doesn't lend itself to such movement or if there are significant differences in the way that the workers are treated (benefit provisions or inappropriate behavior consequences), a separate contract might be better.

Large contracts will demand night work. Shift times will be largely determined by the types of businesses served. Offices and small businesses will be closed by early evening on most days. If most contracts are composed of these businesses, it may only be necessary to staff a shift that begins at five or six P.M. Many large stores and businesses that are open evening hours (such as restaurants) will need to be cleaned in the early morning hours and shifts that end around seven or eight A.M. must be started. When designing shifts:

* Try to have public transportation available at least one way. Transport workers after a shift that begins in the late afternoon or pick them up prior to a shift that begins in the early morning, but make the clients responsible for

their own transportation at one end. This further normalizes the work environment. Remember, clients will need to face transportation reality when they are ready to enter competitive positions.

- * Shift workers should not be subject to frequent alterations of their schedule. The workers should not be forced to work an early morning shift one week and a late evening shift the next. This will create havoc with their biological clock. Not only will absentee rates skyrocket, but drowsiness will impede successful rehabilitation efforts and will also increase the likelihood that workers will be injured on the job. This is not to imply that late night shifts should not exist; it is to imply that the clients and staff assigned to late night shifts should not be moved around frequently once they have adjusted to the hours.

- * Not all clients or staff will be able to successfully adjust to the demands and life-style changes of shift living. Have contingency plans if adjustments to the shifts cannot be made.

- * Foremen will be working alone most of the time. If a client worker fails to report for work, the rest of the workers must work a little harder. You can plan for absences in several ways:

  (A) Put a little extra time into your figures for each shift's tour on the job by using rework figures for late night shifts. When all workers are present use this time for extra detail work. If a worker is missing, simply skip the extra detail work for the next session.

  (B) Create a pool of clients that are willing to work on short notice when an emergency vacancy occurs. This would be helpful when more than one worker fails to show for work.

(C) Establish an "on call" system for staff members. Contingency plans for the foremen are essential. If a late night foreman fails to show up for work, the contract is in jeopardy. Often, the clients will fail to notify you that something is amiss until late in the morning. Clients must be given specific instruction on who to call and when they should call. (This must be very specific. Such as, "If your foreman has not arrived to pick you up by 12:15 A.M., call Supervisor Jones at 232-1169 and let the phone ring until someone answers." Put this information on a sticky label and encourage clients to attach it to their phones.)

* The on-call system for emergencies or sicknesses will spread the liability for other-than-normal shift work among all relevant staff. There are benefits to this arrangement. If one person is held responsible for all sicknesses and emergency no-shows, the stress placed on that person will cause position vacancy quickly. In addition, since the individual usually chosen for such responsibility is often the supervisor of the program, the staff likely to call in absences will be able to easily justify leaving their shift responsibilities to that person. Use of an on-call system for all relevant staff will reduce the stress to key staff. Indeed, the stress for all staff will be fully defined to specific hours of specific days. Largely because calling in absences would force (on most occasions) peers to take over shifts, the absences are more likely to be confined to legitimate needs.

* Working at night, normal backup systems for such things as equipment failure, supply needs, vehicle breakdowns, inclement weather, worker schedules, and medical concerns, are not available or are

operating at different levels and using different procedures than those systems available during the daylight hours. Plan backup procedures for everything that can go wrong and leave room for those things that you didn't think could go wrong. Tool sets, flashlights with good batteries, and comprehensive industrial first aid kits should be standard issue. Staff should be trained in multimedia first aid procedures, be well versed in the medical considerations of the disability group for which vocational alternatives are being provided, and be certified in cardiopulmonary resuscitation. Mechanical abilities are desirable. Operation manuals on all the equipment used must be included in the tool kit. Keep on hand plug ends, belts, fuses, nuts, bolts, electrical tape, switches and any special items used in the equipment supplied. All contract facilities should be examined for fire emergency and procedures for evacuation outlined, taught to staff and clients, and located for access in case of emergency. Access should also be ready for EMS numbers, police and fire numbers, supervision numbers. Procedures should be outlined and made clear, delineating who is allowed at the site. Clear any access to the building through the business' management. Procedures detailing actions during robbery attempts must be provided. Even if all possibilities of "things that could go wrong," have been explored, be ready to handle something that couldn't go wrong that did.

A CONCLUDING REMARK

The changing face of the labor economy is causing rehabilitation managers to look for different sources of training areas and sheltered work areas.

As the information age progresses, the area of labor services will continue to grow, first as an additional area for sheltered work, then as a prime area for competitive training.

Some economists feel that computerization and robotics will ultimately invade the service industry as well. Certainly some innovative equipment will cause a squeeze on the service labor market. The competition for service contracts will grow fierce as many segments of the labor supply fight to prosper. Just as certainly, disabled workers with strong facility support mechanisms should be able to be a viable influence in the contracting field.

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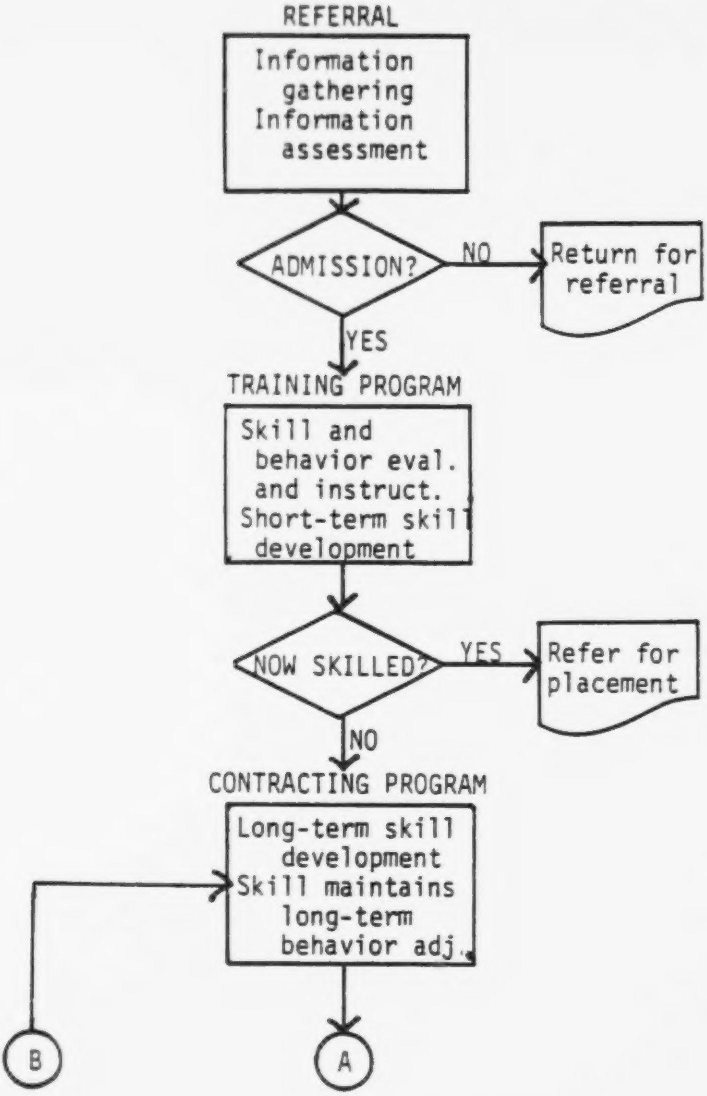
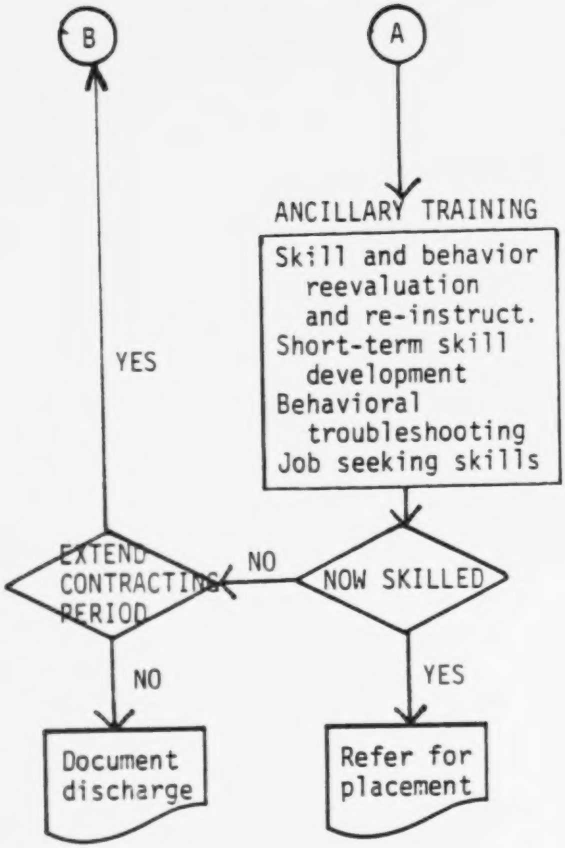

REFERRAL
Information gathering
Information assessment
ADMISSION?
NO
Return for referral
YES
TRAINING PROGRAM
Skill and behavior eval. and instruct.
Short-term skill development
NOW SKILLED?
YES
Refer for placement
NO
CONTRACTING PROGRAM
Long-term skill development
Skill maintains long-term behavior adj.
B
A

THE TRAINING-CONTRACTING-ANCILLARY PROGRAM


B
A
ANCILLARY TRAINING
Skill and behavior reevaluation and re-instruct.
Short-term skill development
Behavioral troubleshooting
Job seeking skills
YES
EXTEND CONTRACTING PERIOD
NO
NOW SKILLED
NO
YES
Document discharge
Refer for placement

THE TRAINING-CONTRACTING-ANCILLARY PROGRAM continued.

APPENDICES

Appendix A

The following performance standards for Janitorial tasks are excerpts from:

> Janitorial Formulas published as NAVDOCKS document P-706.1 as changed February, 1965, by Public Works Maintenance, Department of the Navy, Bureau of Yards and Docks, Washington, D.C. 20390.

Included are the composite time standards for each task. More discrete component timings are available for each task in the complete document.

Janitorial Formulas

Formula Number		Page
PWJ-4	Venetian Blinds, Clean	155
PWJ-5	Wet Mopping, Machine Scrubbing, Machine Sweeping	156
PWJ-6	Sweeping and Dust Mopping Floors	158
PWJ-7	Buffing Floors	160
PWJ-8	Vacuuming Carpets, Rugs, Venetian Blinds, Fluorescent Fixtures and Ventilator Outlets	161
PWJ-9	Washing Walls, Partitions and Glass	163
PWJ-10	Dusting (Furniture, Equipment, Hot and Cold Water Pipes, Fluorescent Fixtures, Pipe Covering and Partition Ledges)	165
PWJ-11	Service and Clean Washrooms	172
PWJ-12	Waste Disposal	175
PWJ-13	Light Fixtures, Clean (Fluorescent and Incandescent)	177

FORMULA PWJ-4

TITLE: Venetian Blinds, Clean

APPLICATION: This formula applies to the cleaning of metal or wood slat venetian blinds which are made up of slats from 40" to 60" long. The blind lengths may vary from 40 to 60 slats. The tilting and bottom rails may be either wood or metal. The formula does not include repair or renewal of parts. It does not include travel time, allowances or job preparation time. Removal and installation time is included in the formula.

PWJ-4

Reference	Operation	Unit	Leveled Time
I	Remove, dismantle, clean, reassemble, reinstall wood slat type blinds. Move furniture and use ladder.	each	.7869
II	Remove, dismantle, clean, reassemble, reinstall metal slat type blinds. Move furniture and use ladder.	each	.9466
III	Remove, dismantle, clean, reassemble, reinstall metal slat type blinds. No furniture moved, no ladder used.	each	.9039

TITLE: Wet Mopping

APPLICATION: This formula applies to all hand and machine scrubbing operations required to clean floors, clean stairs and landings, waxing and stripping and rewaxing of the following materials: Wood, terrazzo, quarry tile, marble, concrete (sealed) rubber tile, vinyl tile, asphalt tile, ceramic tile, and linoleum. It does not apply to rough concrete.

On-the-job travel time within the building is included in the time values listed.

PWJ-5

Reference	Operation	Unit	Leveled Time
I	Damp mop-light soil (1 item of furniture/100 sq. ft.)	100 sq.ft.	.0267
II	Damp mop-heavy soil (1 item of furniture/100 sq. ft.)	100 sq.ft.	.0441
III	Wet mop-light soil (1 item of furniture/100 sq. ft.)	100 sq.ft.	.0467
IV	Wet mop-heavy soil (1 item of furniture/100 sq. ft.)	100 sq.ft.	.0611
V	Damp mop-light soil (2 to 6 items of furniture/100 sq. ft.)	100 sq.ft.	.0390
VI	Damp mop-heavy soil (2 to 6 items of furniture/100 sq. ft.)	100 sq.ft.	.0511
VII	Wet mop-light soil (2 to 6 items of furniture/100 sq. ft.)	100 sq.ft.	.0660

PWJ-5 (cont.)

Reference	Operation	Unit	Leveled Time
VIII	Wet mop-heavy soil (2 to 6 items of furniture/100 sq. ft.)	100 sq.ft.	.0781
IX	Damp mop-light or heavy soil (7 or more items of furniture/100 sq. ft.)	100 sq.ft.	.0484
X	Wet mop-light or heavy soil (7 or more items of furniture/100 sq. ft.)	100 sq.ft.	.0754
XI	Strip and rewax* floor (1 to 6 items of furniture/100 sq. ft.)	100 sq.ft.	.1132
XII	Strip and rewax* floor (7 or more items of furniture/100 sq. ft.)	100 sq.ft.	.1276
XIII	Damp mop stairs (4 steps-5' long)	4 steps	.0191
XIV	Damp mop landing (up to 100 sq. ft.)	landing	.0330
XV	Wet mop stairs (4 steps- 5' long)	4 steps	.0358
XVI	Wet mop landing (up to 100 sq. ft.)	landing	.0523
XVII	Machine scrubbing (1 item of furniture/100 sq. ft.)	100 sq.ft.	.0402

*NOTE: When applying one coat of wax, use damp mop, light soil values.

TITLE: Sweeping and Dust Mopping Floors

APPLICATION: This formula applies to sweeping of linoleum, asphalt tile, terrazzo, and cement floors and to dust mopping of linoleum, asphalt tile and terrazzo floors. Various constructions will retard progress in the performance of the sweeping operation. Therefore, the areas have been grouped into categories based on the number of movable or obstructing pieces of furniture per 100 square feet of area. It was noted that as the number of movable pieces of furniture per 100 square feet increases, the percentage of fixed obstructions remains relatively constant.

PWJ-6

Reference	Operation	Unit	Leveled Time
I	Dust mop floor (obstructed by 1 item of furniture)	100 sq.ft.	.0086
II	Dust mop floor (obstructed by 2 to 6 items of furniture)	100 sq.ft.	.0164
III	Dust mop floor (obstructed by 7 items of furniture)	100 sq.ft.	.0206
IV	Sweep floor (obstructed by 1 item of furniture/24" broom)	100 sq.ft.	.0123
V	Sweep floor (obstructed by 2 to 6 items of furniture/ 24" broom)	100 sq.ft.	.0195

PWJ-6 (cont.)

Reference	Operation	Unit	Leveled Time
VI	Sweep floor (obstructed by 7 items of furniture/24" broom)	100 sq.ft.	.0231
VII	Dust mop landings	100 sq.ft.	.0100
VIII	Sweep landings (24" broom)	100 sq.ft.	.0213
IX	Dust mop stairs (5 ft. to 8 ft.)	8 steps	.0126
X	Sweep stairs (24" broom/ 5 ft. to 8 ft.)	8 steps	.0170

TITLE: Buffing Floors

APPLICATION: This formula applies to buffing of asphalt tile and linoleum flooring. Various obstructions in office areas will retard progress in the performance of the buffing operation. Therefore, the areas have been divided into three categories based on the number of pieces of furniture per 100 square feet area.

PWJ-7

Reference	Operation	Unit	Leveled Time
I	Buffing floors (1 item of furniture per 100 square feet).	100 sq.ft.	.0205
II	Buffing floors (2 to 6 items of furniture per 100 square feet).	100 sq.ft.	.0254
III	Buffing floors (7 and more items of furniture per 100 square feet).	100 sq.ft.	.0303

TITLE: Vacuuming Carpets and Rugs

APPLICATION: Office types consist of "Executive," "Reception," "Administrative," "Administrative-Conference," and "Conference."

Travel within the building is included in the time values listed.

PWJ-8

Reference	Operation	Unit	Leveled Time
I	Vacuum rugs (1-3 chairs/ 100 sq. ft.)	100 sq.ft.	.0512
II	Vacuum rugs (4-6 chairs/ 100 sq. ft.)	100 sq.ft.	.0709
III	Vacuum rugs (7-10 chairs/ 100 sq. ft.)	100 sq.ft.	.0911

FORMULA PWJ-8
(1965)

TITLE: Vacuuming Venetian Blinds, Fluorescent Fixtures and Ventilator Outlet

APPLICATION: This addendum applies to the vacuuming of venetian blinds, fluorescent fixtures and ventilator outlets with a portable, piggyback type, vacuum in office areas. Travel between offices, opening and closing doors, lock and unlock doors, turn lights on and off and use of elevator are included in time values.

PWJ-8 (1965)

Reference	Operation	Unit	Leveled Time
IV	Vacuum Venetian Blind 3'-0" x5'-0" up to 4'-5" x5'-0"	10	.5830
V	Vacuum Venetian Blinds 4'-8" x5'-0" up to 6'-6" x5'-0"	10	.6700
VI	Vacuum Ventilator Outlet and 24 sq. ft. of Acoustic Tile	1	.0810
VII	Vacuum Fluorescent Fixtures 4'-0", 2 tube	6	.0642
VIII	Vacuum Fluorescent Fixtures 8'-0", 2 tube	6	.0774

TITLE: Washing Walls, Partitions and Glass

APPLICATION: This formula applies to washing of walls, ceilings, partitions and windows. The first time preparation of detergent, rinse or ammonia solution is not included in this since it is covered in the job preparation formula. However, preparation of additional solutions is included in this formula. When washing windows, travel from one window to the next one is included. Travel time and allowances are not included.

PWJ-9

Reference	Operation	Unit	Leveled Time
I	Wash walls, partitions (no ladder)	100 sq.ft.	.3467
II	Wash walls, partitions (use ladder)	100 sq.ft.	.3667
III	Wash ceilings (use scaffold)	100 sq.ft.	.4167
IV	Wash baseboards or sills (no ladder)	100 sq.ft.	.4967
V	Wash glass partitions (no ladder)	100 sq.ft.	.2375
VI	Wash glass partitions (use ladder)	100 sq.ft.	.2575
VII	Wash windows (no ladder)	100 sq.ft.	.2575
VIII	Wash windows (use ladder)	100 sq.ft.	.3231

PWJ-9 (cont.)

Reference	Operation	Unit	Leveled Time
IX	Wash tile (no ladder)	100 sq.ft.	.2067
X	Wash tile (use ladder or scaffold)	100 sq.ft.	.2267
XI	Spot wash	100 sq.ft.	.7418
XII	Wash door (include 2 sides and frame)	per door	.1387

TITLE: Dusting

APPLICATION: Time values listed are applicable to each scheduled dusting of top surface and to each scheduled dusting of front and sides of items specified.

With the exception of desks, time values are applicable to floor items with not more than one item (up to 2.5 pounds) requiring a "pick-up and return" operation to enable dusting of surfaces underneath the item per 1.4 square feet of top dusting surface. Desk time values provide for pick-up and return of 3 items.

These time values provide for dusting furniture over 40 pounds in weight in place.

PWJ-10

Reference	Operation	Unit	Leveled Time
I	Book case (3 section with glass doors/13" x 33" x 54"/dust top only)	each	.0030
II	Book case (3 section, etc., dust front sides, wipe glass)	each	.0205
III	Bulletin board (dust)	each	.0041
IV	Cabinet (2 drawer card file 7" x 16" x 18½"/just top only)	each	.0024
V	Cabinet (2 drawer card file/ dust sides and front)	each	.0018
VI	Cabinet (storage/18" x 36" x 78"/dust top only)	each	.0184

PWJ-10 (cont.)

Reference	Operation	Unit	Leveled Time
VII	Cabinet (storage/dust front and sides)	each	.0224
VIII	Arm chair (upholstered, leather covered / interior top surface)	each	.0064
IX	Arm chair (upholstered/dust exterior surfaces)	each	.0080
X	Chair (conference, padded back, cushion/dust top surfaces)	each	.0058
XI	Chair (conference, padded back/dust understructure)	each	.0086
XII	Chair (rotary or typists'/ dust top surfaces)	each	.0044
XIII	Chair (rotary or typists'/ dust understructure)	each	.0073
XIV	Clothestree/dust	each	.0054
XV	Convector (4"/dust)	each	.0065
XVI	Desks (dust top and 3 desk items)	each	.0113

PWJ-10 (cont.)

Reference	Operation	Unit	Leveled Time
XVII	Desks (dust sides and front)	each	.0193
XVIII	Divan (6', leather covered, dust surfaces)	each	.0133
XIX	Divan (6', leather, etc., dust exterior and legs)	each	.0134
XX	File (4 drawer, 18" x 28" x 52", dust top only)	each	.0029
XXI	File (4 drawer, etc., dust front and sides)	each	.0081
XXII	Lamp (desk, fluorescent, dust & damp wipe tubes)	each	.0071
XXIII	Locker (18" x 21" x 6' 6", dust top only)	each	.0141
XXIV	Locker (18" x 21" x 6' 6", dust front and sides)	each	.0110
XXV	Partitions (with glass, dust sills, damp wipe glass, 100 square feet)	100 sq.ft.	.0221
XXVI	Partitions (with glass, dust vertical surface, per 100 square feet)	100 sq.ft.	.0305
XXVII	Partitions (walls, etc., solid, dust per 100 sq. ft.	100 sq.ft.	.0411
XXVIII	Picture (frame, dust and damp wipe glass)	each	.0056

PWJ-10 (cont.)

Reference	Operation	Unit	Leveled Time
XXIX	Rack (clothes, 20" x 4' 3" x 6' 6", dust)	each	.0127
XXX	Radiator (10" x 2' 6" x 4', dust top only)	each	.0043
XXXI	Radiator (10" x 2' 6" x 4', dust sides, ends, interior)	each	.0218
XXXII	Stand (smoking, 9" base 24" high, dust)	each	.0032
XXXIII	Stand (typewriter, drop leaves, dust top only)	each	.0034
XXXIV	Stand (typewriter, drop leaves, dust understructure)	each	.0058
XXXV	Table (30½" x 34" x 45", dust top only)	each	.0056
XXXVI	Table (dust legs and sides)	each	.0105
XXXVII	Table (30½" x 34" x 60", dust top only)	each	.0081
XXXVIII	Table (30½" x 34" x 60", dust sides and legs)	each	.0115
XXXIX	Table (conference, 2' 6½" x 4" x 12", dust top only)	each	.0226
XL	Table (conference, etc., dust sides and understructure)	each	.0225

PWJ-10 (cont.)

Reference	Operation	Unit	Leveled Time
XLI	Fan (dust)	each	.0072
XLII	Venetian blind (41½" x 60", in place, dust)	each	.0624
XLIII	Ash tray (dust, 6" diameter)	each	.0012
XLIV	Desk items (dust, miscellaneous)	per 3 misc. items	.0021
XLV	Window ledge (dust)	lineal feet	.0001
XLVI	Telephone (dust)	each	.0012

FORMULA PWJ-10
(1965)

TITLE: Dust pipe, pipe covering, fluorescent fixtures and top ledge of partitions

APPLICATION: This addendum applies to the removal of dust accumulation on overhead pipes, pipe covering, fluorescent fixtures and top ledge of partitions (7'-4" height).

PWJ-10 (1965)

Reference	Operation	Unit	Leveled Time
XLVII	Dust overhead pipe (open area	1000 ft.	.2220
XLVIII	Dust overhead pipe (obstructed area)	1000 ft.	.2780
XLIX	Dust overhead pipe (including short extensions, obstructed area)	1000 ft.	.3990
L	Dust pipe covering (obstructed area)	1000 ft.	.3710
LI	Dust pipe covering (open area)	1000 ft.	.3180
LII	Dust fluorescent fixtures (4'-0", egg crate, 2 tube, open area)	60	.1570
LIII	Dust fluorescent fixtures (8'-0", egg crate, 2 tube, open area)	60	.3130
LIV	Dust fluorescent fixtures (4'-0", egg crate, 2 tube, obstructed area)	60	.2890

PWJ-10 (1965) (cont.)

Reference	Operation	Unit	Leveled Time
LV	Dust fluorescent fixtures (8'-0", egg crate, obstructed area)	60	.3610
LVI	Dust fluorescent fixtures (industrial type, 4'-0", 2 tube, open area)	40	.1890
LVII	Dust fluorescent fixtures (industrial type, 8'-0", 2 tube, open area)	40	.3130
LVIII	Dust fluorescent fixtures (industrial type, 4'-0", 2 tube, obstructed area)	40	.4570
LIX	Dust fluorescent fixtures (industrial type, 8'-0", 2 tube, obstructed area)	40	.5450
LX	Dust top of 7'-4" partitions (obstructed area)	1000 ft.	.1790

FORMULA PWJ-11

TITLE: Service and clean washrooms

APPLICATION: This formula applies to facilities requiring janitorial services to maintain washrooms at an average standard of cleanliness. This formula does not apply to maintenance of patient's washrooms and related facilities in hospitals where germ control is a requisite.

PWJ-11

Reference	Operation	Unit	Leveled Time
I	Men's washroom (check towels, soap, tissue)	100 sq.ft.	.0136
II	Women's washroom (check towels, soap, tissue, sanitary napkin dispensers and disposal units)	100 sq.ft.	.0347
III	Men's washroom (refill empty dispensers, install clean roller towel, toilet tissue, etc., and leave spare rolls)	100 sq.ft.	.0480
IV	Women's washroom (refill empty dispensers, install clean roller towel, toilet tissue, etc., and leave spare rolls)	100 sq.ft.	.0985
V	Mirrors (wash and polish)	1 sq.ft.	.0016
VI	Lavatory (wall-type and adjacent wall area, clean)	each	.0151
VII	Lavatory with pedestal and adjacent wall area (clean)	each	.0238

PWJ-11 (cont.)

Reference	Operation	Unit	Leveled Time
VIII	Water closet or women's urinal (clean, includes disinfect)	each	.0346
IX	Urinal (floor-type, clean, includes disinfect)	each	.0321
X	Urinal (wall-type, clean, includes disinfect)	each	.0254
XI	Bradley basin (5' diameter, clean)	each	.0765
XII	Bradley basin (½ circle, 5' diameter, clean)	each	.0370
XIII	Men's washroom with wall-type urinal and lavatory (clean*)	100 sq.ft.	.1245
XIV	Men's washroom with wall-type lavatory, floor-type urnial (clean*)	100 sq.ft.	.1312
XV	Men's washroom with floor-type urinal, lavatory with pedestal (clean*)	100 sq.ft.	.1442
XVI	Women's washroom (clean complete*)	100 sq.ft.	.2092
XVII	Men's washroom (clean* and service towels, soap, tissues)	100 sq.ft.	.1922

PWJ-11 (cont.)

Reference	Operation	Unit	Leveled Time
XVIII	Women's washroom (clean* and service empty dispensers, toilet tissue, install clean roller towel)	100 sq.ft.	.3077
XIX	Drinking fountain (clean top and sides)	each	.0200
	*NOTE: Operations consist of cleaning and disinfecting closets, urinals; clean lavatories, sanitary napkin disposal units (where applicable); damp wipe all dispensers and containers, sills, ledges, incandescent lamp shades and spot damp wipe toilet partitions and clean mirrors. Floor sweeping and mopping are not included.		

TITLE: Waste disposal

APPLICATION: This formula applies to operations required to gather waste in offices, conference rooms, lunch rooms, reception rooms, lobbies, corridors, reproduction or printing rooms and heads, and disposal of debris in lugger buckets.

Travel within the building and to the lugger bucket is included in the time values listed.

PWJ-12

Reference	Operation	Unit	Leveled Time
I	Empty waste basket (small, medium)	each	.0055
II	Empty ash tray and damp wipe (desk tray)	each	.0017
III	Dispose of waste collected in cardboard barrel on 4 wheel cart (weight full 50 pounds, 12,000 sq.ft. of office area per barrel)	each	.0546
IV	Dispose of waste collected in cardboard barrel in offices, heads, conference rooms.	1000 sq.ft.	.0046
V	Dispose of waste collected in large metal container 2' x 3' from reproduction rooms (weight full 80 pounds, per barrel)	each	.0474

PWJ-12 (cont.)

Reference	Operation	Unit	Leveled Time
VI	Dispose of waste collected in large metal container (weight full 80 pounds, use elevator, return container to original location, per container)	each	.0932
VII	Dispose of waste collected in large canvas sack 22" x 33" (weight full 58 pounds, return sack to original location, use elevator)	each	.0936
VIII	Empty large Bennet trash container bag (10" x 16" x 33")	per bag	.0077
IX	Empty GI can	each	.0059
X	Empty Bennet disposal and sand urn	each	.0121
XI	Empty pencil sharpener	each	.0039
XII	Empty and damp wipe ash tray (floor stand)	each	.0028
XIII	Clean out sand urn with scoop strainer	each	.0023
XIV	Empty small Bennet trash can (11' x 11' x 33")	each	.0030

FORMULA PWJ-13

TITLE: Light fixtures, clean (fluorescent and incandescent)

APPLICATION: Time is allowed for the disassembly, washing, re-assembly of each fixture. For types of fixtures that cannot be disassembled, time is allowed to clean it in place. Ladder and fork lift time is provided in the table as a separate item. Any changes or variations in methods or conditions may necessitate revision.

PWJ-13

Reference	Operation	Unit	Leveled Time
I	Disassemble, clean and re-assemble industrial 2/40 watt fluorescent	each	.0769
II	Disassemble, clean and re-assemble finned louver 2/40 watt fluorescent	each	.1368
III	Disassemble, clean and re-assemble finned louver 4/40 watt fluorescent	each	.1655
IV	Disassemble, clean and re-assemble egg crate louver 4/40 watt fluorescent	each	.1876
V	Disassemble, clean and re-assemble RLM open (removable shade to 300 watt)	each	.0305
VI	Disassemble, clean and re-assemble RLM open, in place to 300 watt	each	.0436

PWJ-13 (cont.)

Reference	Operation	Unit	Leveled Time
VII	Disassemble, clean and reassemble vapor or explosion proof with shade to 300 watt	each	.0906
VIII	Disassemble, clean and reassemble vapor or explosion proof without shade to 300 watt	each	.0274
IX	Disassemble, clean and reassemble recessed 4/40 watt fluorescent	each	.1315
X	Disassemble, clean and reassemble open glass globe to 300 watt	each	.0317
XI	Disassemble, clean and reassemble strip light 1/40 watt fluorescent	each	.0168
XII	Disassemble, clean and reassemble combination mercury vapor and incandescent	each	.0924
XIII	Relocate ladder for fixture cleaning (end to end fixture spacing, open area, 8' ceiling)	each	.0119
XIV	Relocate ladder for fixture cleaning (end to end fixture spacing, office area, 8' ceiling)	each	.0134

PWJ-13 (cont.)

Reference	Operation	Unit	Leveled Time
XV	Relocate ladder for fixture cleaning (end to end fixture spacing, obstructed area, 8' ceiling)	each	.0209
XVI	Relocate ladder for fixture cleaning (2' to 5' fixture spacing, open and office area, 8' ceiling)	each	.0146
XVII	Relocate ladder for fixture cleaning (2' to 5' fixture spacing, obstructed area, 8' ceiling)	each	.0227
XVIII	Relocate ladder for fixture cleaning (7' to 20' fixture spacing, obstructed area, 8' ceiling)	each	.0241
XIX	Relocate ladder for fixture cleaning to next fixture bay (approximately 30', 8' ceiling)	each	.0301
XX	Relocate ladder for fixture cleaning (10' to 20' spacing, 20' extension ladder, shop area)	each	.0651
XXI	Relocate ladder for fixture cleaning (10' to 20' spacing, store area, fork lift height	each	.0288

Appendix B

Following is a listing of curriculums and guides that contain, at least in part, applications for janitorial training programs. Within the body of this manuscript, (page 25), exists criteria for evaluating the contents of janitorial curriculums. This appendix listing makes no attempt to compare or evaluate these curriculums or attest to their applicability to individual curriculum needs. The author also acknowledges that other curriculums for janitorial training may also exist in unpublished, out-of-print, locally distributed, or unreferenced forms. Where known, sources for the curriculums are noted; addresses follow listings.

Anderson, C.E. *Energy conservation for school custodial and maintenance personnel, course outline and instructional materials*. Raleigh, North Carolina: North Carolina State Department of Community Colleges, 1979.

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Klein, J. *Custodial training manual*. Chicago, Illinois: Goodwill Rehabilitation Center, No date.

Lubeck, A. Custodial training. Salt Lake City, Utah: Salt Lake City Board of Education, Columbus Community Center, No date. (Available from publisher.)

Modesto Junior College. Custodian training. Modesto, California: Author, 1966. (Available from ERIC Document Reproduction Service, #ED038515.)

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Smally, D.E. Floor maintenance Manual. Milwaukee, Wisconsin: Trade Press Publishing Company, 1961.

State Department of Education. Resource manual for custodial training, number two: Floor care. Tallahassee, Florida: School Plant Management Section, No date.

Taylor, E. Building maintenance, performance objectives. Basic course. Jacksonville, Florida: Duval County School Board, 1976. (Available from ERIC Document Reproduction Service, #139963.)

Tiller, C. An activities of daily living curriculum for handicapped adults. Twin Falls, Idaho: Magic Valley Rehabilitation Services, 1978. (Available from the Materials Development Center.)

Walls, R., Zane, T., and Werner, T. Vocational behavior checklist. Morgantown, West Virginia: West Virginia University Research and Training Center, 1978.

Washington State Board for Vocational Education. Custodial basic skills manual. Olympia, Washington: Author, No date. (Available from ERIC Document Reproduction Service, #ED091513.)

Wehrman, P. and McLaughlin, P. Vocational curriculum for developmentally disabled persons. Baltimore, Maryland: University Park Press, 1980.

Worrell, W. School custodial services: Exemplary standards and practices. Eugene, Oregon: Oregon School Study Council, Oregon University, Field Training and Services Bureau, 1972.

Source addresses:

ERIC Document Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Materials Development Center
Stout Vocational Rehabilitation Institute
Univeristy of Wisconsin-Stout
Menomonie, Wisconsin 54751

National Clearinghouse of Rehabilitation
Training Materials
Oklahoma State University
15 Old USDA Building
Stillwater, Oklahoma 74074

National Technical Information Service
U.S. Department of Commerce
Springfield, Virginia 22161

U.S. Government Printing Office
Superintendent of Documents
Washington, D.C. 20013

Appendix C

Bidding Formulas

1. Amount of area factor:
(For use in determining normal times)

Square footage to be cleaned
÷ standard formula area of 100

= Amount of area factor

2. Average production for pay period:

Percentage scores for each task
÷ total number of tasks

= Average production for pay period

3. Contract impact on daily operations:

Direct labor hours expected
÷ total contract hours

= Contract impact on daily operations

4. Conversion of normal time in hours to
normal time in minutes:

Time in hours
X 60

= Conversion of normal time in hours
to normal time in minutes

5. Direct labor quotation

Area prevailing wage per hour
X normal hours expected
= Direct labor quotation

6. Expected labor performance

Area prevailing wage
X normal hours expected
= Expected labor performance

7. Labor cost per square foot

Amount of direct labor in dollars
÷ total square footage
= Labor cost per square foot

8. Normal time for task area

(Total area ÷ 100)
X normal time per 100 sq. ft.
= Normal time for task area

9. Number of sessions per year

(Number of sessions per week
X 52 weeks)
- planned sessions off for holidays
= Number of sessions per year

10. Over-cost revenue allocation per hour of direct labor

Desired over-cost revenue
÷ total expected direct labor hours
= Over-cost revenue allocation
per hour of direct labor

11. Pay for clients

Area prevailing wage
X production
X hours worked
= Pay for clients

12. Percentage of normal quality

Total correct areas
- areas with errors
= Percentage of normal quality

13. Percentage of normal work pace

Normal time
÷ actual completion time
= Percentage of normal work pace

14. Productivity

(Percentage of normal speed
X percentage of speed component)
+ (percentage of normal quality
X percentage of quality component)
= Productivity

or (Percentage of normal speed
X .90)
+(percentage of normal quality
X .10)
= Productivity

15. Square footage cleaned per session

Total square footage
X number of sessions per period
= Square footage cleaned per session

16. Total contract hours per day

Hours for contract A
+ hours for contract B ...
+ hours for contracting
= Total contract hours per day